

Witness					
Line					
No.	Exhibit #	Schedule #	Witness	Exhibit #	Description
	(a)	(b)	(c)	(d)	(e)
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STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of)
CONSUMERS ENERGY COMPANY)
for authority to increase its rates for the)
distribution of natural gas and for other relief.)
_____)

Case No. U-21806

EXHIBIT

OF

HEIDI J. MYERS

ON BEHALF OF

CONSUMERS ENERGY COMPANY

December 2024

EXHIBIT A-79 (HJM-1)
IS CONFIDENTIAL AND
BEING FILED UNDER SEAL
WITH THE MPSC

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of)
CONSUMERS ENERGY COMPANY)
for authority to increase its rates for the)
distribution of natural gas and for other relief.)
_____)

Case No. U-21806

EXHIBITS
OF
MUSTAFA AHMED
ON BEHALF OF
CONSUMERS ENERGY COMPANY

December 2024

Schedule E-1

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Annual Service Area Deliveries by Major Customer Classes and System Output

5-Year Historical

(Consumption in MMcf)

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Date: December 2024

Line No.	(a) Year	(b) Residential	(c) Commercial	(d) Industrial	(e) Inter- Departmental	(f) Total	(g) LAUF Gas Volumes MMcf	(h) % of Output	(i) Sendout
1	2019	167,703	85,837	59,435	238	313,214	5,917	1.9	319,131
2	2020	153,675	75,525	53,805	304	283,310	5,206	1.8	288,516
3	2021	147,363	76,844	57,056	400	281,662	-	-	281,662
4	2022	164,154	84,938	64,871	666	314,629	3,798	1.2	318,427
5	2023	<u>142,260</u>	<u>77,230</u>	<u>62,667</u>	<u>161</u>	<u>282,317</u>	<u>5,055</u>	<u>1.8</u>	<u>287,372</u>

Schedule E-1a

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
 Summary of 2023 Historical Year Revenues
 (\$000)

Case No.: U-21806
 Exhibit No.: A-5 (MA-2)
 Schedule: E-1a
 Page: 1 of 1
 Witness: MAhmed
 Date: December 2024

Line	(a) Description	(b) Operating Revenues	(c) Source
	Gas Sales		
	Residential Service		
1	Single Family Dwelling A	\$ 1,560,998	WP-MA-5
2	Multifamily Dwelling A-1	52,460	WP-MA-5
3	Total Residential Service	1,613,458	
	General Service		
4	Small Service GS-1	377,696	WP-MA-5
5	Medium Service GS-2	130,377	WP-MA-5
6	Large Service GS-3	57,438	WP-MA-5
7	Outdoor Lighting GL	4	WP-MA-5
8	Total General Service	565,515	
9	Total Gas Sales	2,178,973	
	Transportation		
10	Small Transport ST	43,378	WP-MA-6
11	Large Transport LT	29,351	WP-MA-6
12	Extra-large Transport XLT	30,891	WP-MA-6
13	Extra-Extra-large Transport XXL	11,502	WP-MA-6
14	Total Transportation	115,122	
15	Total Tariff Revenues	2,294,095	
16	Miscellaneous Revenues	105,825	WP-MA-6
17	Total Revenues	\$ 2,399,920	P522 page 305B Line 16

Schedule E-2

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

2023 Historical Year Consumption and Customer Counts

(Consumption in MMcf)

Case No.: U-21806

Exhibit No.: A-5 (MA-3)

Schedule: E-2

Page: 1 of 1

Witness: MAhmed

Date: December 2024

Line	Description	(a)	(b)	(c)
		Customer Count (1)		MMcf
		12-month	Year End	Consumption
		Average		
	Gas Sales			
	Residential Service			
1	Single Family Dwelling A	1,553,444	1,556,850	125,929
2	Multifamily Dwelling A-1	6,499	6,477	3,216
3	Total Residential Service	1,559,943	1,563,327	129,146
	General Service			
4	Small Service GS-1	99,159	100,080	23,099
5	Medium Service GS-2	11,160	10,953	12,881
6	Large Service GS-3	374	367	4,031
7	Outdoor Lighting GL	6	6	1
8	Total General Service	110,699	111,406	40,012
9	Total Gas Sales	1,670,642	1,674,733	169,158
	Customer Choice			
	Residential Service			
10	Single Family Dwelling A	121,430	121,974	10,036
11	Multifamily Dwelling A-1	2,610	2,607	2,016
12	Total Residential Service	124,040	124,581	12,052
	General Service			
13	Small Service GS-1	15,092	15,035	5,104
14	Medium Service GS-2	6,668	6,631	10,350
15	Large Service GS-3	272	271	3,033
16	Total General Service	22,032	21,937	18,486
17	Total Customer Choice	146,072	146,518	30,539
	Transportation			
18	Small Transport ST	1,265	1,268	18,392
19	Large Transport LT	354	356	18,502
20	Extra-large Transport XLT	130	128	25,997
21	Extra-Extra-large Transport XXLT	3	3	17,127
22	Total Transportation	1,752	1,755	80,017
	Aggregation			
	Residential Service			
23	Single Family Dwelling A	78	84	8
24	Multifamily Dwelling A-1	74	74	84
25	Total Residential Service	152	158	92
	General Service			
26	Small Service GS-1	730	727	205
27	Medium Service GS-2	814	808	2,136
28	Large Service GS-3	23	21	171
29	Total General Service	1,567	1,556	2,512
30	Total Aggregation	1,719	1,714	2,604
31	Total Customers & Deliveries	1,820,185	1,824,720	282,317

Notes

(1) Includes contiguous accounts

Schedule E-3

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
 2023 Historical Year Operating Revenues
 (\$000)

Case No.: U-21806
 Exhibit No.: A-5 (MA-4)
 Schedule: E-3
 Page: 1 of 1
 Witness: MAhmed
 Date: December 2024

Line	Description	(a) Tariff	(b) Fuel	(c) Energy Optimization	(d) Operating Revenues
Gas Sales					
Residential Service					
1	Single Family Dwelling A	\$ 858,950	\$ 499,666	\$ 48,396	\$ 1,407,012
2	Multifamily Dwelling A-1	16,835	12,609	1,248	30,691
3	Total Residential Service	875,785	512,274	49,644	1,437,703
General Service					
4	Small Service GS-1	218,319	90,456	9,968	318,742
5	Medium Service GS-2	(37,747)	54,230	1,125	17,608
6	Large Service GS-3	11,087	18,383	1,693	31,163
7	Outdoor Lighting GL	4	-	-	4
8	Total General Service	191,664	163,068	12,785	367,518
9	Total Gas Sales	1,067,449	675,343	62,429	1,805,221
Customer Choice					
Residential Service					
10	Single Family Dwelling A	66,928	83,293	3,712	153,933
11	Multifamily Dwelling A-1	10,518	10,040	746	21,303
12	Total Residential Service	77,445	93,333	4,458	175,236
General Service					
13	Small Service GS-1	24,979	30,735	2,127	57,840
14	Medium Service GS-2	41,821	57,876	4,315	104,013
15	Large Service GS-3	12,526	11,830	1,264	25,620
16	Total General Service	79,326	100,441	7,706	187,473
17	Total Customer Choice	156,771	193,774	12,163	362,708
Transportation					
18	Small Transport ST	36,086	-	7,291	43,378
19	Large Transport LT	27,667	-	1,684	29,351
20	Extra-large Transport XLT	29,961	-	930	30,891
21	Extra-Extra-large Transport XXLT	11,268	-	235	11,502
22	Total Transportation	93,715	-	9,905	115,122
Aggregation					
Residential Service					
23	Single Family Dwelling A	50	-	3	53
24	Multifamily Dwelling A-1	435	-	31	466
25	Total Residential Service	485	-	34	519
General Service					
26	Small Service GS-1	1,028	-	86	1,114
27	Medium Service GS-2	7,866	-	890	8,756
28	Large Service GS-3	584	-	71	655
29	Total General Service	9,478	-	1,047	10,525
30	Total Aggregation	9,963	-	1,081	11,044
31	Total Delivery	\$ 1,327,897	\$ 869,117	\$ 85,579	\$ 2,294,095

Schedule E-1

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Market Outlook: 5-Year Annual Calendar Gas Forecast by Class
(Consumption in MMcf)

Case No.: U-21806
Exhibit No.: A-15 (MA-5)
Schedule: E-1
Page: 1 of 1
Witness: MAhmed
Date: December 2024

Line	(a) Year	(b)	(c)	(d)	(e) Inter-	(f) Total	(g) LAUF Gas Volumes		(h)	(i)
		Residential	Commercial	Industrial	departmental		MMcf	% of Output	Sendout	
1	2025 Fcst	159,295	82,771	65,464	596	308,126	3,856 ⁽²⁾	1.3	311,982	
2	2026 Fcst	159,121	82,683	65,185	595	307,583	3,856	1.3	311,439	
3	2027 Fcst	158,933	82,566	64,953	591	307,043	3,856	1.3	310,899	
4	2028 Fcst	158,765	82,268	64,654	586	306,273	3,856	1.3	310,129	
5	2029 Fcst	<u>158,723</u>	<u>81,980</u>	<u>64,543</u>	<u>581</u>	<u>305,827</u>	<u>3,856</u>	<u>1.3</u>	<u>309,684</u>	
6	CAGR (25 - 29)	-0.1%	-0.2%	-0.4%	-0.6%	-0.2%	0.0%			-0.2%

Notes

(1) CAGR - Compound Annual Growth Rates

(2) Exhibit A-75 (TKJ-4), line 14, column (f)

Schedule E-2

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Test-Year Cycle Gas Deliveries Forecast by Class

15-Year (2009 - 2023) Weather Normal

(Consumption in MMcf)

Case No.: U-21806

Exhibit No.: A-15 (MA-6)

Schedule: E-2

Page: 1 of 1

Witness: MAhmed

Date: December 2024

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Line	Service	Mth/Yr	Residential	Commercial	Industrial	Inter-departmental	Total
1	Deliveries	Nov-25	11,205	5,738	5,414	16	22,373
2	Deliveries	Dec-25	20,295	9,682	6,470	20	36,467
3	Deliveries	Jan-26	28,243	13,057	6,629	53	47,982
4	Deliveries	Feb-26	27,961	13,499	7,256	27	48,743
5	Deliveries	Mar-26	24,610	11,864	6,606	19	43,099
6	Deliveries	Apr-26	17,547	9,002	6,459	20	33,028
7	Deliveries	May-26	10,474	5,757	4,994	19	21,244
8	Deliveries	Jun-26	5,015	3,408	4,188	9	12,620
9	Deliveries	Jul-26	3,105	2,556	4,027	83	9,771
10	Deliveries	Aug-26	2,773	2,470	4,159	111	9,513
11	Deliveries	Sep-26	3,091	2,559	4,521	175	10,346
12	Deliveries	Oct-26	4,853	3,132	4,521	43	12,549
13	Deliveries	Annual	159,172	82,725	65,244	595	307,736
14	Sales	Nov-25	11,128	3,910	507	16	15,561
15	Sales	Dec-25	20,154	7,167	987	20	28,328
16	Sales	Jan-26	28,051	10,042	1,381	23	39,497
17	Sales	Feb-26	27,718	10,000	1,431	18	39,167
18	Sales	Mar-26	24,401	8,793	1,279	19	34,492
19	Sales	Apr-26	17,368	6,246	908	20	24,542
20	Sales	May-26	10,348	3,718	518	19	14,603
21	Sales	Jun-26	4,949	1,932	263	9	7,153
22	Sales	Jul-26	3,071	1,373	183	10	4,637
23	Sales	Aug-26	2,743	1,295	184	11	4,233
24	Sales	Sep-26	3,060	1,357	194	34	4,645
25	Sales	Oct-26	4,818	1,843	252	11	6,924
26	Sales	Annual	157,809	57,677	8,087	210	223,783
27	Transport	Nov-25	77	1,828	4,907	-	6,812
28	Transport	Dec-25	141	2,515	5,483	-	8,139
29	Transport	Jan-26	192	3,015	5,248	30	8,485
30	Transport	Feb-26	243	3,499	5,825	9	9,576
31	Transport	Mar-26	209	3,071	5,327	-	8,607
32	Transport	Apr-26	179	2,756	5,551	-	8,486
33	Transport	May-26	126	2,039	4,476	-	6,641
34	Transport	Jun-26	66	1,476	3,925	-	5,467
35	Transport	Jul-26	34	1,183	3,844	73	5,134
36	Transport	Aug-26	30	1,175	3,975	100	5,280
37	Transport	Sep-26	31	1,202	4,327	141	5,701
38	Transport	Oct-26	35	1,289	4,269	32	5,625
39	Transport	Annual	1,363	25,048	57,157	385	83,953

Schedule E-3

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Test-Year Cycle Gas Deliveries by Rate Schedule

15-Year (2009 - 2023) Weather Normal

(Consumption in MMcf)

Case No.: U-21806

Exhibit No.: A-15 (MA-7)

Schedule: E-3

Page: 1 of 1

Witness: MAhmed

Date: December 2024

		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
		TOTAL DELIVERIES											
		Residential		General Service				Transportation					
Line	Month	A	A-1	GS-1	GS-2	GS-3	GL	ST	LT	XLT	XXLT	Total	
1	Nov-25	10,677	460	1,944	2,072	588	-	1,450	1,573	2,196	1,412	22,373	
2	Dec-25	19,437	732	3,767	3,722	972	-	1,986	1,737	2,617	1,497	36,467	
3	Jan-26	27,058	1,015	5,430	5,213	1,216	-	2,061	1,923	2,978	1,087	47,982	
4	Feb-26	26,801	941	5,408	5,206	1,257	-	2,551	2,260	3,226	1,094	48,743	
5	Mar-26	23,527	895	4,674	4,644	1,128	-	2,166	2,072	2,933	1,058	43,099	
6	Apr-26	16,729	660	3,226	3,363	904	-	1,906	1,879	2,902	1,459	33,028	
7	May-26	9,896	462	1,881	1,950	571	-	1,571	1,622	1,961	1,328	21,244	
8	Jun-26	4,706	247	919	1,008	345	-	1,158	1,208	1,835	1,193	12,620	
9	Jul-26	2,911	163	633	701	268	-	933	1,187	1,587	1,388	9,771	
10	Aug-26	2,599	146	597	639	285	-	907	1,087	1,522	1,731	9,513	
11	Sep-26	2,905	158	626	690	306	-	1,014	1,224	1,653	1,771	10,346	
12	Oct-26	4,573	249	842	992	343	-	977	1,198	1,867	1,509	12,549	
13	Annual	151,820	6,130	29,949	30,200	8,183	-	18,679	18,970	27,277	16,528	307,736	
		27,058	1,015	5,430	5,213	1,257	-	2,551	2,260	3,226	1,771	48,743	
		SALES											
		Residential		General Service				Transportation					
Line	Month	A	A-1	GS-1	GS-2	GS-3	GL	ST	LT	XLT	XXLT	Total	
14	Nov-25	10,676	451	1,930	1,927	576	-	-	-	-	-	15,561	
15	Dec-25	19,436	718	3,743	3,475	956	-	-	-	-	-	28,328	
16	Jan-26	27,056	995	5,395	4,858	1,193	-	-	-	-	-	39,497	
17	Feb-26	26,799	919	5,373	4,843	1,233	-	-	-	-	-	39,167	
18	Mar-26	23,525	875	4,645	4,340	1,106	-	-	-	-	-	34,492	
19	Apr-26	16,727	641	3,199	3,091	884	-	-	-	-	-	24,542	
20	May-26	9,895	453	1,870	1,824	560	-	-	-	-	-	14,603	
21	Jun-26	4,706	243	914	951	339	-	-	-	-	-	7,153	
22	Jul-26	2,911	160	631	672	263	-	-	-	-	-	4,637	
23	Aug-26	2,599	144	594	615	281	-	-	-	-	-	4,233	
24	Sep-26	2,904	156	622	662	301	-	-	-	-	-	4,645	
25	Oct-26	4,573	246	835	936	336	-	-	-	-	-	6,924	
26	Annual	151,808	6,001	29,752	28,195	8,028	-	-	-	-	-	223,783	
		27,056	995	5,395	4,858	1,233	-	-	-	-	-	39,497	
		TRANSPORTATION											
		Residential		General Service				Transportation					
Line	Month	A	A-1	GS-1	GS-2	GS-3	GL	ST	LT	XLT	XXLT	Total	
27	Nov-25	0.649	9	14	146	12	-	1,450	1,573	2,196	1,412	6,812	
28	Dec-25	1.313	14	24	247	16	-	1,986	1,737	2,617	1,497	8,139	
29	Jan-26	1.966	21	36	355	23	-	2,061	1,923	2,978	1,087	8,485	
30	Feb-26	2.230	22	36	362	23	-	2,551	2,260	3,226	1,094	9,576	
31	Mar-26	2.100	20	29	304	22	-	2,166	2,072	2,933	1,058	8,607	
32	Apr-26	1.881	19	26	272	20	-	1,906	1,879	2,902	1,459	8,486	
33	May-26	1.041	9	11	126	11	-	1,571	1,622	1,961	1,328	6,641	
34	Jun-26	0.327	4	5	57	6	-	1,158	1,208	1,835	1,193	5,467	
35	Jul-26	0.177	3	3	28	5	-	933	1,187	1,587	1,388	5,134	
36	Aug-26	0.154	3	2	24	5	-	907	1,087	1,522	1,731	5,280	
37	Sep-26	0.189	3	4	27	6	-	1,014	1,224	1,653	1,771	5,701	
38	Oct-26	0.306	4	7	56	7	-	977	1,198	1,867	1,509	5,625	
39	Annual	12.333	129	197	2,005	155	-	18,679	18,970	27,277	16,528	83,953	

Schedule E-4

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
Test-Year Authorized Tolerance Levels by Rate Schedule
(Consumption in MMcf)

Case No.: U-21806
Exhibit No.: A-15 (MA-8)
Schedule: E-4
Page: 1 of 1
Witness: MAhmed
Date: December 2024

Line	Description	(a) Nov-25	(b) Dec-25	(c) Jan-26	(d) Feb-26	(e) Mar-26	(f) Apr-26	(g) May-26	(h) Jun-26	(i) Jul-26	(j) Aug-26	(k) Sep-26	(l) Oct-26	(m) Annual
Small Transport ST														
1	2% ATL	2	3	3	3	3	3	2	1	1	1	1	1	23
2	4% ATL	15	14	18	18	18	16	15	10	8	6	8	10	158
3	6.5% ATL	154	193	176	230	189	155	131	109	99	85	100	94	1,715
4	7.5% ATL	30	35	39	49	41	35	29	21	18	17	21	20	355
5	8.5% ATL	1,250	1,741	1,825	2,250	1,917	1,697	1,394	1,016	807	798	884	852	16,429
6	9.5% ATL	-	-	-	-	-	-	-	-	-	-	-	-	-
7	10.5% ATL	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Total ATL	1,450	1,986	2,061	2,551	2,166	1,906	1,571	1,158	933	907	1,014	977	18,679
Large Transport LT														
9	2% ATL	-	-	-	-	-	-	-	-	-	-	-	-	-
10	4% ATL	79	85	99	113	110	91	79	64	64	54	60	64	962
11	6.5% ATL	244	258	255	314	281	240	214	190	192	195	197	189	2,771
12	7.5% ATL	14	19	23	27	23	20	17	12	9	9	10	10	193
13	8.5% ATL	1,235	1,376	1,545	1,805	1,658	1,527	1,312	942	922	829	958	935	15,044
14	9.5% ATL	-	-	-	-	-	-	-	-	-	-	-	-	-
15	10.5% ATL	-	-	-	-	-	-	-	-	-	-	-	-	-
16	Total ATL	1,573	1,737	1,923	2,260	2,072	1,879	1,622	1,208	1,187	1,087	1,224	1,198	18,970
Extra-large Transport XLT														
17	2% ATL	506	487	544	505	511	519	188	144	71	52	78	362	3,967
18	4% ATL	125	171	178	173	169	179	141	122	143	149	141	148	1,839
19	6.5% ATL	1,076	1,287	1,467	1,695	1,469	1,501	1,084	862	893	820	875	896	13,925
20	7.5% ATL	61	94	89	97	80	67	82	90	94	97	103	96	1,049
21	8.5% ATL	428	578	699	757	705	636	467	617	386	404	456	365	6,497
22	9.5% ATL	-	-	-	-	-	-	-	-	-	-	-	-	-
23	10.5% ATL	-	-	-	-	-	-	-	-	-	-	-	-	-
24	Total ATL	2,196	2,617	2,978	3,226	2,933	2,902	1,961	1,835	1,587	1,522	1,653	1,867	27,277
Extra-Extra-large Transport XXLT														
25	4% ATL	1,412	1,497	1,087	1,094	1,058	1,459	1,328	1,193	1,388	1,731	1,771	1,509	16,528
26	Total ATL	1,412	1,497	1,087	1,094	1,058	1,459	1,328	1,193	1,388	1,731	1,771	1,509	16,528

Schedule E-5

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Market Outlook: 5-Year Average Customer Forecast by Class
(Consumption in MMcf)

Case No.: U-21806

Exhibit No.: A-15 (MA-9)

Schedule: E-5

Page: 1 of 1

Witness: MAhmed

Date: December 2024

	(a)	(b)	(c)	(d)	(e)	(f)
Line	Year	Residential	Commercial	Industrial	Inter- departmental	Total
1	2025 Fcst	1,702,287	132,739	4,144	58	1,839,228
2	2026 Fcst	1,711,096	133,107	4,144	58	1,848,406
3	2027 Fcst	1,719,748	133,436	4,144	58	1,857,387
4	2028 Fcst	1,728,302	133,737	4,144	58	1,866,241
5	2029 Fcst	<u>1,736,316</u>	<u>134,019</u>	<u>4,144</u>	<u>58</u>	<u>1,874,538</u>
6	CAGR (25 - 29)	0.50%	0.24%	0.00%	0.00%	0.48%

Notes

(1) CAGR - Compound Annual Growth Rates

Schedule E-6

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
 Test-Year Customer Count Forecast by Class
 Billed & Contiguous Customers
 (Monthly Customer Counts)

Case No.: U-21806
 Exhibit No.: A-15 (MA-10)
 Schedule: E-6
 Page: 1 of 1
 Witness: MAhmed
 Date: December 2024

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Line	Service	Month	Residential	Commercial	Industrial	Inter-departmental	Total
1	Deliveries	Nov-25	1,705,107	132,776	4,147	57	1,842,087
2	Deliveries	Dec-25	1,706,468	133,168	4,146	57	1,843,839
3	Deliveries	Jan-26	1,708,890	133,481	4,145	57	1,846,573
4	Deliveries	Feb-26	1,709,616	134,015	4,144	57	1,847,832
5	Deliveries	Mar-26	1,710,432	133,916	4,145	57	1,848,550
6	Deliveries	Apr-26	1,708,203	133,185	4,145	57	1,845,590
7	Deliveries	May-26	1,713,712	133,041	4,145	57	1,850,955
8	Deliveries	Jun-26	1,710,612	132,976	4,146	57	1,847,791
9	Deliveries	Jul-26	1,711,759	132,335	4,146	57	1,848,297
10	Deliveries	Aug-26	1,710,352	132,353	4,146	57	1,846,908
11	Deliveries	Sep-26	1,709,729	132,521	4,146	57	1,846,453
12	Deliveries	Oct-26	1,710,853	132,765	4,145	57	1,847,820
13	Deliveries	Annual	1,709,644	133,044	4,146	57	1,846,891
14	Sales	Nov-25	1,704,896	130,004	3,612	57	1,838,569
15	Sales	Dec-25	1,706,257	130,396	3,611	57	1,840,321
16	Sales	Jan-26	1,708,679	130,709	3,610	57	1,843,055
17	Sales	Feb-26	1,709,405	131,243	3,609	57	1,844,314
18	Sales	Mar-26	1,710,221	131,142	3,610	57	1,845,030
19	Sales	Apr-26	1,707,992	130,410	3,610	57	1,842,069
20	Sales	May-26	1,713,501	130,265	3,610	57	1,847,433
21	Sales	Jun-26	1,710,401	130,200	3,611	57	1,844,269
22	Sales	Jul-26	1,711,548	129,559	3,611	57	1,844,775
23	Sales	Aug-26	1,710,141	129,577	3,611	57	1,843,386
24	Sales	Sep-26	1,709,518	129,744	3,611	57	1,842,930
25	Sales	Oct-26	1,710,642	129,988	3,610	57	1,844,297
26	Sales	Annual	1,709,433	130,270	3,611	57	1,843,371
27	Transport	Nov-25	211	2,772	535	-	3,518
28	Transport	Dec-25	211	2,772	535	-	3,518
29	Transport	Jan-26	211	2,772	535	-	3,518
30	Transport	Feb-26	211	2,772	535	-	3,518
31	Transport	Mar-26	211	2,774	535	-	3,520
32	Transport	Apr-26	211	2,775	535	-	3,521
33	Transport	May-26	211	2,776	535	-	3,522
34	Transport	Jun-26	211	2,776	535	-	3,522
35	Transport	Jul-26	211	2,776	535	-	3,522
36	Transport	Aug-26	211	2,776	535	-	3,522
37	Transport	Sep-26	211	2,777	535	-	3,523
38	Transport	Oct-26	211	2,777	535	-	3,523
39	Transport	Annual	211	2,775	535	-	3,521

Schedule E-7

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Test-Year Total Customer Count Forecast by Rate Schedule
(Monthly Customer Counts)Case No.: U-21806
Exhibit No.: A-15 (MA-11)
Schedule: E-7
Page: 1 of 1
Witness: MAhmed
Date: December 2024

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
		TOTAL CUSTOMERS										
		Residential		General Service				Transportation				
Line	Month	A	A-1	GS-1	GS-2	GS-3	GL	ST	LT	XLT	XXLT	Total
1	Nov-25	1,695,844	9,214	118,322	16,369	568	-	1,281	358	128	3	1,842,087
2	Dec-25	1,697,198	9,221	118,815	16,270	565	-	1,281	358	128	3	1,843,839
3	Jan-26	1,699,607	9,234	119,240	16,163	559	-	1,281	358	128	3	1,846,573
4	Feb-26	1,700,329	9,238	119,862	16,079	554	-	1,281	358	128	3	1,847,832
5	Mar-26	1,701,140	9,243	119,920	15,928	548	-	1,281	359	128	3	1,848,550
6	Apr-26	1,698,923	9,231	119,408	15,715	541	-	1,282	359	128	3	1,845,590
7	May-26	1,704,403	9,260	119,423	15,562	535	-	1,282	359	128	3	1,850,955
8	Jun-26	1,701,319	9,244	119,509	15,417	530	-	1,282	359	128	3	1,847,791
9	Jul-26	1,702,460	9,250	119,076	15,216	523	-	1,282	359	128	3	1,848,297
10	Aug-26	1,701,061	9,242	119,238	15,077	518	-	1,282	359	128	3	1,846,908
11	Sep-26	1,700,441	9,239	119,533	14,954	513	-	1,282	359	129	3	1,846,453
12	Oct-26	1,701,559	9,245	119,895	14,840	508	-	1,282	359	129	3	1,847,820
13	Annual	20,404,284	110,861	1,432,241	187,590	6,462	-	15,379	4,304	1,538	36	22,162,695
14	Average	1,700,357	9,238	119,353	15,633	539	-	1,282	359	128	3	1,846,891
		BILLED										
		Residential		General Service				Transportation				
Line	Month	A	A-1	GS-1	GS-2	GS-3	GL	ST	LT	XLT	XXLT	Total
15	Nov-25	1,695,844	9,214	118,296	16,311	511	-	669	100	24	3	1,840,972
16	Dec-25	1,697,198	9,221	118,788	16,212	508	-	669	100	24	3	1,842,723
17	Jan-26	1,699,607	9,234	119,213	16,105	504	-	669	100	24	3	1,845,459
18	Feb-26	1,700,329	9,238	119,834	16,020	500	-	669	100	24	3	1,846,717
19	Mar-26	1,701,140	9,243	119,891	15,869	495	-	669	101	24	3	1,847,435
20	Apr-26	1,698,923	9,231	119,379	15,656	489	-	669	101	24	3	1,844,475
21	May-26	1,704,403	9,260	119,393	15,503	484	-	669	101	24	3	1,849,840
22	Jun-26	1,701,319	9,244	119,478	15,358	479	-	669	101	24	3	1,846,675
23	Jul-26	1,702,460	9,250	119,045	15,157	474	-	669	101	24	3	1,847,183
24	Aug-26	1,701,061	9,242	119,206	15,018	469	-	669	101	24	3	1,845,793
25	Sep-26	1,700,441	9,239	119,501	14,896	465	-	669	101	24	3	1,845,339
26	Oct-26	1,701,559	9,245	119,862	14,781	461	-	669	101	24	3	1,846,705
27	Annual	20,404,284	110,861	1,431,886	186,886	5,839	-	8,028	1,208	288	36	22,149,316
28	Average	1,700,357	9,238	119,324	15,574	487	-	669	101	24	3	1,845,776
		CONTIGUOUS										
		Residential		General Service				Transportation				
Line	Month	A	A-1	GS-1	GS-2	GS-3	GL	ST	LT	XLT	XXLT	Total
29	Nov-25	-	-	26	58	57	-	612	258	104	-	1,115
30	Dec-25	-	-	27	58	57	-	612	258	104	-	1,116
31	Jan-26	-	-	27	58	55	-	612	258	104	-	1,114
32	Feb-26	-	-	28	59	54	-	612	258	104	-	1,115
33	Mar-26	-	-	29	59	53	-	612	258	104	-	1,115
34	Apr-26	-	-	29	59	52	-	613	258	104	-	1,115
35	May-26	-	-	30	59	51	-	613	258	104	-	1,115
36	Jun-26	-	-	31	59	51	-	613	258	104	-	1,116
37	Jul-26	-	-	31	59	49	-	613	258	104	-	1,114
38	Aug-26	-	-	32	59	49	-	613	258	104	-	1,115
39	Sep-26	-	-	32	58	48	-	613	258	105	-	1,114
40	Oct-26	-	-	33	59	47	-	613	258	105	-	1,115
41	Annual	-	-	355	704	623	-	7,351	3,096	1,250	-	13,379
42	Average	-	-	30	59	52	-	613	258	104	-	1,115

Schedule E-8

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Calculation of Test-Year Projected Income Assistance Enrollments
(Consumption in MMcf)

Case No.: U-21806

Exhibit No.: A-15 (MA-12)

Schedule: E-8

Page: 1 of 1

Witness: MAhmed

Date: December 2024

		(a)	(b)	(c)	(d)	(e)	(f)	(g)
		Single Family Dwelling Rate Schedule A						
Line	Month	Standard		Income Assistance		Total		
		Customers	Consumption	Customers	Consumption	Customers	Consumption	
1	Nov-25	1,609,075	10,130	86,769	546	1,695,844	10,676	
2	Dec-25	1,610,360	18,441	86,838	994	1,697,198	19,436	
3	Jan-26	1,612,645	25,672	86,962	1,384	1,699,607	27,056	
4	Feb-26	1,613,330	25,427	86,999	1,371	1,700,329	26,799	
5	Mar-26	1,614,100	22,322	87,040	1,204	1,701,140	23,525	
6	Apr-26	1,611,996	15,871	86,927	856	1,698,923	16,727	
7	May-26	1,617,196	9,389	87,207	506	1,704,403	9,895	
8	Jun-26	1,614,270	4,465	87,049	241	1,701,319	4,706	
9	Jul-26	1,615,352	2,762	87,108	149	1,702,460	2,911	
10	Aug-26	1,614,025	2,466	87,036	133	1,701,061	2,599	
11	Sep-26	1,613,437	2,756	87,004	149	1,700,441	2,904	
12	Oct-26	1,614,497	4,339	87,062	234	1,701,559	4,573	
13	Annual	<u>19,360,283</u>	<u>144,040</u>	<u>1,044,001</u>	<u>7,767</u>	<u>20,404,284</u>	<u>151,808</u>	
14	Average	<u>1,613,357</u>		<u>87,000</u>		<u>1,700,357</u>		

Schedule E-9**MICHIGAN PUBLIC SERVICE COMMISSION**Consumers Energy CompanyCalculation of Test-Year Excess Peak Consumption
(Consumption in MMcf)

Case No.: U-21806

Exhibit No.: A-15 (MA-13)

Schedule: E-9

Page: 1 of 1

Witness: MAhmed

Date: December 2024

Line	(a) Description	(b) Calculation	(c) Source
1	Peak month consumption	941	Exhibit No.: A-15 (MA-7), page 1, column c
2	Peak month customer count	9,238	Exhibit No.: A-15 (MA-11), page 1, column c
3	Base level consumption per customer	<u>45</u>	Tariff Sheet D-10.00
4	Base level consumption	416	(line 2 x line 3) / 1000
5	Excess peak consumption per month	525	line 1 - line 4
6	Number of months	<u>12</u>	Tariff Sheet D-10.00
7	Annual excess peak consumption	<u><u>6,302</u></u>	line 5 x line 6

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Transition from 2023 Historic Actuals to 12 Months Ending October 2026

Test-Year Revenues, Deliveries, and Customers

Schedule E-10

Case No.: U-21806
Exhibit No.: A-15 (MA-14)
Schedule: E-10
Page: 1 of 1
Witness: MAhmed
Date: December 2024

Line	Description	2023 Actuals	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h) 12 Months Ending October 2026 Test-Year
<u>Less Non-Base Tariff Items</u>										
	Revenues (\$000)									
	Gas Sales ⁽¹⁾									
1	Delivery	\$ 1,229,660	\$ -	\$ -	\$ -	\$ 106,805	\$ 6,651	\$ -	\$ 101,370	\$ 1,444,486
2	Fuel	916,875	(916,875)	-	-	-	-	737,588	-	737,588
	Surcharges									
3	Energy Optimization	80,196	-	-	(80,196)	-	-	-	-	-
4	PEM/OEM	-	-	-	-	-	-	-	-	-
5	Total Gas Sales	2,226,731	(916,875)	(80,196)	106,805	6,651	737,588	101,370	2,182,075	
	Transportation									
6	Delivery	104,982	-	-	4,853	(2,314)	-	-	(5,125)	102,396
	Surcharges									
7	Energy Optimization	10,140	-	(10,140)	-	-	-	-	-	-
8	Total Transportation	115,122	-	(10,140)	4,853	(2,314)	-	(5,125)	102,396	
9	Provisions for Refund	(47,758)	47,758	-	-	-	-	-	-	-
10	Miscellaneous Revenue ⁽²⁾	105,825	(105,825)	-	-	-	-	-	-	-
11	Total Revenue (\$000)	\$ 2,399,920	\$ (974,942)	\$ (90,336)	\$ 111,658	\$ 4,337	\$ 737,588	\$ 96,245	\$ 2,284,471	
	Deliveries (MMcf)									
12	Gas Sales ⁽¹⁾	202,300	-	-	22,887	1,094	-	-	-	226,281
13	Transportation	80,017	-	-	3,201	(1,764)	-	-	-	81,455
14	Total Deliveries (MMcf)	282,317	-	-	26,088	(670)	-	-	-	307,736
	Customer Count (12 Mo. Avg)									
	Gas Sales ⁽¹⁾									
15	Billed Count	1,818,283	-	-	-	26,700	-	-	-	1,844,983
16	Contiguous Count	150	-	-	-	(10)	-	-	-	140
	Transportation									
17	Billed Count	788	-	-	-	6	-	-	-	794
18	Contiguous Count	964	-	-	-	11	-	-	-	975
19	Total Customer Count (Avg)	1,820,185	-	-	-	26,706	-	-	-	1,846,891

Notes

(1) Includes aggregate billed transportation accounts.

(2) Test-Year miscellaneous revenues excluded and presented in the Revenue Requirements testimony

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of)
CONSUMERS ENERGY COMPANY)
for authority to increase its rates for the)
distribution of natural gas and for other relief.)
_____)

Case No. U-21806

REDACTED
EXHIBITS
OF
STACY H. BAKER
ON BEHALF OF
CONSUMERS ENERGY COMPANY

December 2024

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Summary of Actual and Projected Information Technology Operations O&M Expense
For the Years 2023, 2024, 2025 and Test Year 12 Months Ending October 31, 2026
(\$000)

Case No.: U-21806
Exhibit No.: A-17 (SHB-1)
Page: 1 of 2
Witness: SHBaker
Date: December 2024

Line No.	(a) Description	(b) Historical		(c)		(d)		(e) Projected		(f)		(g)		(h)		(i) Source
		12 Months Ended 12/31/2023	12 Months Ending 12/31/2024	12 Months Ending 12/31/2025	2 Months Ending 12/31/2025	10 Months Ending 10/31/2026	12 Months Ending 12/31/2026	12 Months Ending 12/31/2025	10 Months Ending 10/31/2026	12 Months Ending 12/31/2026	12 Months Ending 12/31/2026	12 Months Test Year	12 Months Ending 12/31/2026	12 Months Ending 12/31/2026	12 Months Ending 12/31/2026	
1	Information Technology	\$ 24,323	\$ 26,062	\$ 28,503	\$ 28,503	\$ 4,750	\$ 25,182	\$ 4,750	\$ 25,182	\$ 29,933	\$ 30,219	\$ 29,933	\$ 30,219			
	Labor	6,229	5,807	6,535	6,535	1,089	5,446	1,089	5,446	6,535	6,535	6,535	6,535			
	Contracts	12,267	13,497	14,969	14,969	2,495	13,904	2,495	13,904	16,399	16,685	16,399	16,685			
	Material	1,131	847	907	907	151	755	151	755	907	907	907	907			
	Contractor	4,124	5,076	5,250	5,250	875	4,375	875	4,375	5,250	5,250	5,250	5,250			
	Non-Labor Overheads	-	-	-	-	-	-	-	-	-	-	-	-			
	Non-Labor Other	571	834	842	842	140	702	140	702	842	842	842	842			
2	Security	\$ 4,015	\$ 5,160	\$ 6,825	\$ 6,825	\$ 1,138	\$ 5,688	\$ 1,138	\$ 5,688	\$ 6,825	\$ 6,825	\$ 6,825	\$ 6,825			
	Labor	1,641	2,450	2,885	2,885	481	2,404	481	2,404	2,885	2,885	2,885	2,885			
	Contracts	1,471	2,033	2,733	2,733	456	2,278	456	2,278	2,733	2,733	2,733	2,733			
	Material	10	4	-	-	-	-	-	-	-	-	-	-			
	Contractor	844	471	1,011	1,011	168	842	168	842	1,011	1,011	1,011	1,011			
	Non-Labor Overheads	-	-	-	-	-	-	-	-	-	-	-	-			
	Non-Labor Other	50	202	197	197	33	164	33	164	197	197	197	197			
3	Total Operations O&M Expenses	\$ 28,338	\$ 31,222	\$ 35,328	\$ 35,328	\$ 5,888	\$ 30,870	\$ 5,888	\$ 30,870	\$ 36,758	\$ 37,044	\$ 36,758	\$ 37,044			
	Labor	7,870	8,258	9,420	9,420	1,570	7,850	1,570	7,850	9,420	9,420	9,420	9,420			

Line No.	Description	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
		Actual 12 Mos Ending Dec 31, 2023	Base O&M for Merit & Inflation 12 Mos Ending Dec 31, 2023	Merit & Inflation 12 Mos Ending Dec 31, 2024	Base O&M for Merit & Inflation 12 Mos Ending Dec 31, 2024	Merit & Inflation 12 Mos Ending Dec 31, 2025	(e) * Inflation Rate	Base O&M for Merit & Inflation 12 Mos Ending Dec 31, 2025	Merit & Inflation 10 Mos Ending Oct 31, 2026	Other Adjustments	(b) + (d) + (f) + (h) + (i)
1	Information Technology	24,323	6,229	199	5,807	139	124	5,947	124	5,147	29,933
	Labor	6,229	6,229	199	5,807	139	124	5,947	124	-157	6,535
	Contracts	12,267								4,132	16,399
	Material	1,131								-225	907
	Contractor	4,124								1,126	5,250
	Non-Labor Overhead	0								0	0
2	Security	571								271	842
	Labor	4,015	1,641	52	2,450	59	52	2,509	52	2,647	6,825
	Contracts	1,641	1,641	52	2,450	59	52	2,509	52	1,081	2,885
	Material	1,471								1,262	2,733
	Contractor	10								-10	0
	Non-Labor Overhead	844								167	1,011
3	Non-Labor Other	0								0	0
	Labor	50								147	197
	Total Operations O&M Expenses	28,338	7,870	252	8,258	198	176	8,456	176	7,794	36,758
	Labor	7,870	7,870	252	8,258	198	176	8,456	176	924	9,420
	Contracts	13,738								5,394	19,132
	Material	1,142								-235	907
	Contractor	4,968								1,293	6,261
	Non-Labor Overhead	0								0	0
	Non-Labor Other	621								418	1,039

Notes

Annual inflation rates per Company witness PayI			
12-Mo Ending 2024		12-Mo Ending 2025	10-Mo Ending 2026
3.2%		2.4%	2.5%
Number of months in the period		12	10
Pro-rated inflation rate		2.4%	2.1%

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
Historical 13 Month Average of IT Cloud Computing Prepaid Balance
For the years 2023 - 13 months balance ending June 30, 2024
Gas Allocation

Case No.: U-21806
Exhibit No.: A-18 (SHB-2)
Page: 1 of 2
Witness: SHBaker
Date: December 2024

Line No.	(a) Description	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
		Bal. Ended 6/30/2023	Bal. Ended 7/31/2023	Bal. Ended 8/31/2023	Bal. Ended 9/30/2023	Bal. Ended 10/31/2023	Bal. Ended 11/30/2023	Bal. Ended 12/31/2023	Bal. Ended 1/31/2024	Bal. Ended 2/29/2024	Bal. Ended 3/31/2024	Bal. Ended 4/30/2024	Bal. Ended 5/31/2024	Bal. Ended 6/30/2024	13 mos. Average
1	IT Cloud Computing Prepaid	\$ (4,508,233)	\$ (4,265,049)	\$ (3,836,559)	\$ (3,489,259)	\$ (2,822,343)	\$ (2,551,776)	\$ (2,236,121)	\$ (5,497,972)	\$ (6,895,220)	\$ (6,964,632)	\$ (6,303,362)	\$ (5,559,164)	\$ (4,811,480)	\$ (4,595,475)
2	Total	\$ (4,508,233)	\$ (4,265,049)	\$ (3,836,559)	\$ (3,489,259)	\$ (2,822,343)	\$ (2,551,776)	\$ (2,236,121)	\$ (5,497,972)	\$ (6,895,220)	\$ (6,964,632)	\$ (6,303,362)	\$ (5,559,164)	\$ (4,811,480)	\$ (4,595,475)

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
Projected 13 Month Average of IT Cloud Computing Prepaid Balance
For the years 2025 - 13 months balance ending October 31, 2026
Gas Allocation

Case No.: U-21806
Exhibit No.: A-18 (SHB-2)
Page: 2 of 2
Witness: SHBaker
Date: December 2024

Line No.	(a) Description														
		(b) Bal. Ending 10/31/2025	(c) Bal. Ending 11/30/2025	(d) Bal. Ending 12/31/2025	(e) Bal. Ending 1/31/2026	(f) Bal. Ending 2/28/2026	(g) Bal. Ending 3/31/2026	(h) Bal. Ending 4/30/2026	(i) Bal. Ending 5/31/2026	(j) Bal. Ending 6/30/2026	(k) Bal. Ending 7/31/2026	(l) Bal. Ending 8/31/2026	(m) Bal. Ending 9/30/2026	(n) Bal. Ending 10/31/2026	(o) 13 mos. Average
1	IT Cloud Computing Prepaid	\$ 6,474,099	\$ 5,148,789	\$ 4,419,187	\$ 10,927,025	\$ 10,132,992	\$ 9,229,875	\$ 8,963,923	\$ 7,679,718	\$ 7,342,134	\$ 7,675,243	\$ 6,543,440	\$ 5,829,093	\$ 4,791,441	\$ 7,319,766
2	Total	\$ 6,474,099	\$ 5,148,789	\$ 4,419,187	\$ 10,927,025	\$ 10,132,992	\$ 9,229,875	\$ 8,963,923	\$ 7,679,718	\$ 7,342,134	\$ 7,675,243	\$ 6,543,440	\$ 5,829,093	\$ 4,791,441	\$ 7,319,766

Consumers Energy Company
Summary of Actual and Projected Information Technology Investments O&M Expenses
For the Years 2023, 2024, 2025 and Test Year 12 Months Ending October 31, 2026
(\$000)

Line No.	(a) Description	(b) Historical		(c) 12 Months Ending 12/31/2024	(d) 12 Months Ending 12/31/2025	(e) Projected		(f) 10 Months Ending 10/31/2026	(g) 12 Months Test Year	(h) 12 Months Ending 12/31/2026	(i) Source
		12 Months Ended 12/31/2023	12 Months Ending 12/31/2023								
1	Investments Planning Information Technology										
	Labor	\$ 517	\$ 606	\$ 440	\$ 366	\$ 440	\$ 440	\$ 440	\$ 440	\$ 440	
	Software	\$ 512	\$ 601	\$ 434	\$ 362	\$ 434	\$ 434	\$ 434	\$ 434	\$ 434	
	Material	344	416	0	0	0	0	0	0	0	
	Contractor	0	0	0	0	0	0	0	0	0	
	Non-Labor Overheads	134	185	0	0	0	0	0	0	0	
	Non-Labor Other	0	0	0	0	0	0	0	0	0	
	Non-Labor Overheads	35	0	0	0	0	0	0	0	0	
2	Security	\$ 5	\$ 5	\$ 5	\$ 4	\$ 5	\$ 5	\$ 5	\$ 5	\$ 5	
	Labor	5	2	5	4	5	4	5	4	5	
	Software	0	0	0	0	0	0	0	0	0	
	Material	0	0	0	0	0	0	0	0	0	
	Contractor	0	3	0	0	0	0	0	0	0	
	Non-Labor Overheads	0	0	0	0	0	0	0	0	0	
	Non-Labor Other	0	0	0	0	0	0	0	0	0	
3	Investments O&M Information Technology	\$ 4,395	\$ 5,709	\$ 9,580	\$ 14,381	\$ 9,580	\$ 14,381	\$ 9,580	\$ 14,381	\$ 17,257	
	Labor	\$ 3,876	\$ 5,094	\$ 9,067	\$ 13,773	\$ 9,067	\$ 13,773	\$ 9,067	\$ 13,773	\$ 16,527	
	Software	1,105	2,213	4,213	1,024	4,213	1,024	4,507	5,531	5,408	
	Material	451	538	598	180	598	180	2,913	3,093	3,496	
	Contractor	129	252	300	381	300	381	381	431	457	
	Non-Labor Overheads	2,008	1,973	2,707	3,373	2,707	3,373	3,373	4,654	4,048	
	Non-Labor Other	167	69	690	562	690	562	746	746	674	
	Non-Labor Overheads	16	50	558	323	558	323	2,037	2,359	2,444	
4	Security	\$ 519	\$ 615	\$ 512	\$ 609	\$ 512	\$ 609	\$ 609	\$ 694	\$ 730	
	Labor	316	310	330	384	330	384	384	439	461	
	Software	88	128	79	163	79	163	163	176	196	
	Material	5	103	0	0	0	0	0	0	0	
	Contractor	102	72	23	38	23	38	41	41	45	
	Non-Labor Overheads	7	2	43	21	43	21	28	28	25	
	Non-Labor Other	1	0	37	2	37	2	9	9	3	
5	Total Investments O&M Expense	\$ 4,912	\$ 6,315	\$ 10,019	\$ 14,748	\$ 10,019	\$ 14,748	\$ 14,748	\$ 17,948	\$ 17,697	
	Labor	1,769	2,941	4,983	1,153	4,983	1,153	5,257	6,410	6,309	
	Software	539	665	677	193	677	193	3,076	3,269	3,691	
	Material	135	354	300	381	300	381	431	457	457	
	Contractor	2,244	2,233	2,731	1,284	2,731	1,284	3,411	4,695	4,093	
	Non-Labor Overheads	174	71	733	192	733	192	583	775	699	
	Non-Labor Other	51	50	596	329	596	329	2,368	2,368	2,447	

Line No.	(a) Description	(b) Actual 12 Mos Ending Dec 31, 2023	(c) Base O&M for Merit & Inflation 12 Mos Ending Dec 31, 2023		(d) Merit & Inflation 12 Mos Ending Dec 31, 2024		(e) Base O&M for Merit & Inflation 12 Mos Ending Dec 31, 2024		(f) Merit & Inflation 12 Mos Ending Dec 31, 2025		(g) Base O&M for Merit & Inflation 12 Mos Ending Dec 31, 2025		(h) Merit & Inflation 10 Mos Ending Oct 31, 2026		(i) Other Adjustments	(j) Projected O&M 12 Mos Ending Oct 31, 2026
						(c) * Inflation Rate				(e) * Inflation Rate				(g) * Inflation Rate		
1	Investments Planning															
	Information Technology															
	Labor	\$	517	0	0	0	0	0	0	0	0	0	0	0	-77	440
	Software	\$	512	0	0	0	0	0	0	0	0	0	0	0	-78	434
	Material		344	0	0	0	0	0	0	0	0	0	0	0	91	434
	Contractor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Non-Labor Overheads		134	0	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Labor Other		35	0	0	0	0	0	0	0	0	0	0	0	0	0
	Security	\$	5	0	0	0	0	0	0	0	0	0	0	0	1	5
	Labor		5	0	0	0	0	0	0	0	0	0	0	0	1	5
	Software		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Material		0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Contractor		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Labor Overheads		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Labor Other		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Investments O&M															
	Information Technology	\$	4,395	0	0	0	0	0	0	0	0	0	0	0	13,113	17,508
	Labor	\$	3,876	0	0	0	0	0	0	0	0	0	0	0	12,938	16,814
4	Software		451	0	0	0	0	0	0	0	0	0	0	0	5,531	5,531
	Material		129	0	0	0	0	0	0	0	0	0	0	0	4,427	4,427
	Contractor		2,008	0	0	0	0	0	0	0	0	0	0	0	2,642	3,093
	Non-Labor Overheads		167	0	0	0	0	0	0	0	0	0	0	0	301	431
	Non-Labor Other		16	0	0	0	0	0	0	0	0	0	0	0	2,645	4,654
	Security	\$	519	0	0	0	0	0	0	0	0	0	0	0	579	746
5	Labor		316	0	0	0	0	0	0	0	0	0	0	0	2,343	2,359
	Software		88	0	0	0	0	0	0	0	0	0	0	0	175	694
	Material		5	0	0	0	0	0	0	0	0	0	0	0	123	439
	Contractor		102	0	0	0	0	0	0	0	0	0	0	0	88	176
	Non-Labor Overheads		7	0	0	0	0	0	0	0	0	0	0	0	-5	0
	Non-Labor Other		1	0	0	0	0	0	0	0	0	0	0	0	-60	41
														22	28	
														8	9	
	Total Investments O&M Expense	\$	4,912	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	13,036	\$ 17,948
	Labor		1,769	0	0	0	0	0	0	0	0	0	0	0	4,641	6,410
	Software		539	0	0	0	0	0	0	0	0	0	0	0	2,730	3,269
	Material		135	0	0	0	0	0	0	0	0	0	0	0	296	431
	Contractor		2,244	0	0	0	0	0	0	0	0	0	0	0	2,451	4,695
	Non-Labor Overheads		174	0	0	0	0	0	0	0	0	0	0	0	601	775
	Non-Labor Other		51	0	0	0	0	0	0	0	0	0	0	0	2,317	2,368

Notes

	12-Mo Ending 2023	12-Mo Ending 2024	9-Mo Ending 2025
Number of months in the period	12	12	9
Pro-rated inflation rate	0.0%	0.0%	0.0%

Schedule B-5.1

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Projected Capital Expenditures

Information Technology

Summary of Actual & Projected Gas and Common Capital Expenditures
(\$000)

Case No.: U-21806

Exhibit No.: A-12 (SHB-4)

Schedule: B-5.1

Page: 1 of 2

Witness: SHBaker

Date: December 2024

	(a)	(b)	(c)	(d)	(e)	(f)
		Capital Expenditures				
		Historical	Projected Bridge Year			Projected Test
Line		12 Mos Ended	12 Mos Ending	10 Mos Ending	22 Mos Ending	Year
No.	Description	12/31/2023	12/31/2024	10/31/2025	10/31/2025	12 mos. Ending
						10/31/2026
1	Corporate	775	684	1,136	1,820	1,187
	Labor	101	436	688	1,124	695
	Software	98	111	0	111	
	Materials	0	0	10	10	38
	Contractor	488	117	63	180	75
	Non-Labor Overhead	26	4	63	67	56
	Non-Labor Other	62	15	311	327	323
	Contingency	0	0	0	0	0
2	Customer	1,096	686	2,550	3,235	2,371
	Labor	214	126	1,122	1,249	925
	Software	3	78	0	78	0
	Materials	9	0	0	0	0
	Contractor	714	436	736	1,172	872
	Non-Labor Overhead	55	15	88	103	79
	Non-Labor Other	101	30	603	633	496
	Contingency	0	0	0	0	0
3	Electric & Gas Shared	2,020	1,943	591	2,534	586
	Labor	403	995	165	1,159	190
	Software	412	213	0	213	0
	Materials	22	99	20	119	32
	Contractor	902	531	222	753	168
	Non-Labor Overhead	74	13	30	43	40
	Non-Labor Other	206	93	154	247	155
	Contingency	0	0	0	0	0
4	Gas	4,535	9,811	11,741	21,552	10,180
	Labor	330	1,499	2,651	4,150	2,930
	Software	1,592	1,198	2,937	4,135	1,123
	Materials	994	949	329	1,278	2,753
	Contractor	1,323	5,583	3,710	9,292	1,393
	Non-Labor Overhead	69	40	587	627	328
	Non-Labor Other	226	543	1,527	2,069	1,653
	Contingency	0	0	0	0	0
5	IT/Digital Foundation	12,847	12,734	8,946	21,680	32,467
	Labor	926	1,827	931	2,758	4,111
	Software	3,784	534	68	602	7,448
	Materials	6,291	6,202	5,953	12,156	9,590
	Contractor	1,423	3,642	1,441	5,083	8,182
	Non-Labor Overhead	75	91	110	201	588
	Non-Labor Other	349	438	442	880	2,549
	Contingency	0	0	0	0	0
6	Security	6,348	6,188	3,762	9,950	3,902
	Labor	1,196	709	692	1,401	392
	Software	203	502	73	576	1,335
	Materials	1,148	1,155	1,336	2,491	1,039
	Contractor	3,293	3,589	1,131	4,720	686
	Non-Labor Overhead	73	7	285	292	219
	Non-Labor Other	435	226	244	470	230
	Contingency	0	0	0	0	0
7	Total Information Technology Capital	27,620	32,046	28,724	60,770	50,693
	Labor	3,170	5,593	6,248	11,841	9,242
	Software	6,093	2,637	3,078	5,715	9,906
	Materials	8,463	8,404	7,649	16,054	13,453
	Contractor	8,142	13,898	7,303	21,201	11,377
	Non-Labor Overhead	373	169	1,164	1,334	1,310
	Non-Labor Other	1,380	1,344	3,281	4,625	5,406
	Contingency	0	0	0	0	0

The Company fully plans to perform the projects included in the Information Technology cost projections, but the projections do not incorporate a specific confidence level. These costs were not projected using confidence levels. Rough Order of Magnitude (ROM) estimates have been reduced by 20% as discussed in my testimony.

Schedule B-5.1

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Projected Capital Expenditures

Information Technology

Summary of Actual & Projected Gas and Common Capital Expenditures

(\$000)

Case No.: U-21806

Exhibit No.: A-12 (SHB-4)

Schedule: B-5.1

Page: 2 of 2

Witness: SHBaker

Date: December 2024

	(a)	(b)	(c)	(d)	(e)
		Projected			
		10 mos. Ending	12 mos. Ending	12 mos. Ending	34 mos. Ending
		10/31/2024	10/31/2025	10/31/2026	10/31/2026
8 Corporate		380	1,440	1,187	3,007
Labor		132	993	695	1,819
Software		111	0	0	111
Materials		0	10	38	48
Contractor		117	63	75	256
Non-Labor Overhead		4	63	56	123
Non-Labor Other		15	311	323	650
Contingency		0	0	0	0
9 Customer		587	2,649	2,371	5,607
Labor		126	1,122	925	2,174
Software		78	0	0	78
Materials		0	0	0	0
Contractor		337	835	872	2,044
Non-Labor Overhead		15	88	79	182
Non-Labor Other		30	603	496	1,129
Contingency		0	0	0	0
10 Electric & Gas Shared		1,525	1,009	586	3,120
Labor		610	549	190	1,349
Software		215	(2)	0	213
Materials		99	20	32	151
Contractor		495	259	168	922
Non-Labor Overhead		13	30	40	83
Non-Labor Other		93	153	155	402
Contingency		0	0	0	0
11 Gas		8,790	12,762	10,180	31,732
Labor		1,165	2,985	2,930	7,079
Software		1,077	3,058	1,123	5,258
Materials		949	329	2,753	4,031
Contractor		5,115	4,178	1,393	10,686
Non-Labor Overhead		40	587	328	955
Non-Labor Other		445	1,624	1,653	3,723
Contingency		0	0	0	0
12 IT/Digital Foundation		10,880	10,800	32,467	54,147
Labor		1,195	1,563	4,111	6,868
Software		439	163	7,448	8,050
Materials		5,388	6,768	9,590	21,746
Contractor		3,421	1,662	8,182	13,264
Non-Labor Overhead		91	110	588	789
Non-Labor Other		346	534	2,549	3,429
Contingency		0	0	0	0
13 Security		5,749	4,201	3,902	13,852
Labor		898	503	392	1,793
Software		502	73	1,335	1,911
Materials		870	1,621	1,039	3,530
Contractor		3,270	1,451	686	5,406
Non-Labor Overhead		7	285	219	511
Non-Labor Other		203	267	230	699
Contingency		0	0	0	0
14 Total Capital		27,910	32,860	50,693	111,464
Labor		4,127	7,715	9,242	21,083
Software		2,422	3,293	9,906	15,621
Materials		7,305	8,749	13,453	29,507
Contractor		12,754	8,447	11,377	32,578
Non-Labor Overhead		169	1,164	1,310	2,644
Non-Labor Other		1,133	3,493	5,406	10,031
Contingency		0	0	0	0

The Company fully plans to perform the projects included in the Information Technology cost projections, but the projections do not incorporate a specific confidence level. These costs were not projected using confidence levels. Rough Order of Magnitude (ROM) estimates have been reduced by 20% as discussed in my testimony.

LINE	YR	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30	Q31	Q32	Q33	Q34	Q35	Q36	Q37	Q38	Q39	Q40	Q41	Q42	Q43	Q44	Q45	Q46	Q47	Q48	Q49	Q50	Q51	Q52	Q53	Q54	Q55	Q56	Q57	Q58	Q59	Q60	Q61	Q62	Q63	Q64	Q65	Q66	Q67	Q68	Q69	Q70	Q71	Q72	Q73	Q74	Q75	Q76	Q77	Q78	Q79	Q80	Q81	Q82	Q83	Q84	Q85	Q86	Q87	Q88	Q89	Q90	Q91	Q92	Q93	Q94	Q95	Q96	Q97	Q98	Q99	Q100	Q101	Q102	Q103	Q104	Q105	Q106	Q107	Q108	Q109	Q110	Q111	Q112	Q113	Q114	Q115	Q116	Q117	Q118	Q119	Q120	Q121	Q122	Q123	Q124	Q125	Q126	Q127	Q128	Q129	Q130	Q131	Q132	Q133	Q134	Q135	Q136	Q137	Q138	Q139	Q140	Q141	Q142	Q143	Q144	Q145	Q146	Q147	Q148	Q149	Q150	Q151	Q152	Q153	Q154	Q155	Q156	Q157	Q158	Q159	Q160	Q161	Q162	Q163	Q164	Q165	Q166	Q167	Q168	Q169	Q170	Q171	Q172	Q173	Q174	Q175	Q176	Q177	Q178	Q179	Q180	Q181	Q182	Q183	Q184	Q185	Q186	Q187	Q188	Q189	Q190	Q191	Q192	Q193	Q194	Q195	Q196	Q197	Q198	Q199	Q200	Q201	Q202	Q203	Q204	Q205	Q206	Q207	Q208	Q209	Q210	Q211	Q212	Q213	Q214	Q215	Q216	Q217	Q218	Q219	Q220	Q221	Q222	Q223	Q224	Q225	Q226	Q227	Q228	Q229	Q230	Q231	Q232	Q233	Q234	Q235	Q236	Q237	Q238	Q239	Q240	Q241	Q242	Q243	Q244	Q245	Q246	Q247	Q248	Q249	Q250	Q251	Q252	Q253	Q254	Q255	Q256	Q257	Q258	Q259	Q260	Q261	Q262	Q263	Q264	Q265	Q266	Q267	Q268	Q269	Q270	Q271	Q272	Q273	Q274	Q275	Q276	Q277	Q278	Q279	Q280	Q281	Q282	Q283	Q284	Q285	Q286	Q287	Q288	Q289	Q290	Q291	Q292	Q293	Q294	Q295	Q296	Q297	Q298	Q299	Q300	Q301	Q302	Q303	Q304	Q305	Q306	Q307	Q308	Q309	Q310	Q311	Q312	Q313	Q314	Q315	Q316	Q317	Q318	Q319	Q320	Q321	Q322	Q323	Q324	Q325	Q326	Q327	Q328	Q329	Q330	Q331	Q332	Q333	Q334	Q335	Q336	Q337	Q338	Q339	Q340	Q341	Q342	Q343	Q344	Q345	Q346	Q347	Q348	Q349	Q350	Q351	Q352	Q353	Q354	Q355	Q356	Q357	Q358	Q359	Q360	Q361	Q362	Q363	Q364	Q365	Q366	Q367	Q368	Q369	Q370	Q371	Q372	Q373	Q374	Q375	Q376	Q377	Q378	Q379	Q380	Q381	Q382	Q383	Q384	Q385	Q386	Q387	Q388	Q389	Q390	Q391	Q392	Q393	Q394	Q395	Q396	Q397	Q398	Q399	Q400	Q401	Q402	Q403	Q404	Q405	Q406	Q407	Q408	Q409	Q410	Q411	Q412	Q413	Q414	Q415	Q416	Q417	Q418	Q419	Q420	Q421	Q422	Q423	Q424	Q425	Q426	Q427	Q428	Q429	Q430	Q431	Q432	Q433	Q434	Q435	Q436	Q437	Q438	Q439	Q440	Q441	Q442	Q443	Q444	Q445	Q446	Q447	Q448	Q449	Q450	Q451	Q452	Q453	Q454	Q455	Q456	Q457	Q458	Q459	Q460	Q461	Q462	Q463	Q464	Q465	Q466	Q467	Q468	Q469	Q470	Q471	Q472	Q473	Q474	Q475	Q476	Q477	Q478	Q479	Q480	Q481	Q482	Q483	Q484	Q485	Q486	Q487	Q488	Q489	Q490	Q491	Q492	Q493	Q494	Q495	Q496	Q497	Q498	Q499	Q500	Q501	Q502	Q503	Q504	Q505	Q506	Q507	Q508	Q509	Q510	Q511	Q512	Q513	Q514	Q515	Q516	Q517	Q518	Q519	Q520	Q521	Q522	Q523	Q524	Q525	Q526	Q527	Q528	Q529	Q530	Q531	Q532	Q533	Q534	Q535	Q536	Q537	Q538	Q539	Q540	Q541	Q542	Q543	Q544	Q545	Q546	Q547	Q548	Q549	Q550	Q551	Q552	Q553	Q554	Q555	Q556	Q557	Q558	Q559	Q560	Q561	Q562	Q563	Q564	Q565	Q566	Q567	Q568	Q569	Q570	Q571	Q572	Q573	Q574	Q575	Q576	Q577	Q578	Q579	Q580	Q581	Q582	Q583	Q584	Q585	Q586	Q587	Q588	Q589	Q590	Q591	Q592	Q593	Q594	Q595	Q596	Q597	Q598	Q599	Q600	Q601	Q602	Q603	Q604	Q605	Q606	Q607	Q608	Q609	Q610	Q611	Q612	Q613	Q614	Q615	Q616	Q617	Q618	Q619	Q620	Q621	Q622	Q623	Q624	Q625	Q626	Q627	Q628	Q629	Q630	Q631	Q632	Q633	Q634	Q635	Q636	Q637	Q638	Q639	Q640	Q641	Q642	Q643	Q644	Q645	Q646	Q647	Q648	Q649	Q650	Q651	Q652	Q653	Q654	Q655	Q656	Q657	Q658	Q659	Q660	Q661	Q662	Q663	Q664	Q665	Q666	Q667	Q668	Q669	Q670	Q671	Q672	Q673	Q674	Q675	Q676	Q677	Q678	Q679	Q680	Q681	Q682	Q683	Q684	Q685	Q686	Q687	Q688	Q689	Q690	Q691	Q692	Q693	Q694	Q695	Q696	Q697	Q698	Q699	Q700	Q701	Q702	Q703	Q704	Q705	Q706	Q707	Q708	Q709	Q710	Q711	Q712	Q713	Q714	Q715	Q716	Q717	Q718	Q719	Q720	Q721	Q722	Q723	Q724	Q725	Q726	Q727	Q728	Q729	Q730	Q731	Q732	Q733	Q734	Q735	Q736	Q737	Q738	Q739	Q740	Q741	Q742	Q743	Q744	Q745	Q746	Q747	Q748	Q749	Q750	Q751	Q752	Q753	Q754	Q755	Q756	Q757	Q758	Q759	Q760	Q761	Q762	Q763	Q764	Q765	Q766	Q767	Q768	Q769	Q770	Q771	Q772	Q773	Q774	Q775	Q776	Q777	Q778	Q779	Q780	Q781	Q782	Q783	Q784	Q785	Q786	Q787	Q788	Q789	Q790	Q791	Q792	Q793	Q794	Q795	Q796	Q797	Q798	Q799	Q800	Q801	Q802	Q803	Q804	Q805	Q806	Q807	Q808	Q809	Q810	Q811	Q812	Q813	Q814	Q815	Q816	Q817	Q818	Q819	Q820	Q821	Q822	Q823	Q824	Q825	Q826	Q827	Q828	Q829	Q830	Q831	Q832	Q833	Q834	Q835	Q836	Q837	Q838	Q839	Q840	Q841	Q842	Q843	Q844	Q845	Q846	Q847	Q848	Q849	Q850	Q851	Q852	Q853	Q854	Q855	Q856	Q857	Q858	Q859	Q860	Q861	Q862	Q863	Q864	Q865	Q866	Q867	Q868	Q869	Q870	Q871	Q872	Q873	Q874	Q875	Q876	Q877	Q878	Q879	Q880	Q881	Q882	Q883	Q884	Q885	Q886	Q887	Q888	Q889	Q890	Q891	Q892	Q893	Q894	Q895	Q896	Q897	Q898	Q899	Q900	Q901	Q902	Q903	Q904	Q905	Q906	Q907	Q908	Q909	Q910	Q911	Q912	Q913	Q914	Q915	Q916	Q917	Q918	Q919	Q920	Q921	Q922	Q923	Q924	Q925	Q926	Q927	Q928	Q929	Q930	Q931	Q932	Q933	Q934	Q935	Q936	Q937	Q938	Q939	Q940	Q941	Q942	Q943	Q944	Q945	Q946	Q947	Q948	Q949	Q950	Q951	Q952	Q953	Q954	Q955	Q956	Q957	Q958	Q959	Q960	Q961	Q962	Q963	Q964	Q965	Q966	Q967	Q968	Q969	Q970	Q971	Q972	Q973	Q974	Q975	Q976	Q977	Q978	Q979	Q980	Q981	Q982	Q983	Q984	Q985	Q986	Q987	Q988	Q989	Q990	Q991	Q992	Q993	Q994	Q995	Q996	Q997	Q998	Q999	Q1000
1	2020	Agile at Customer Service Center	PROJECT NAME	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT ID	Agile at Customer Service Center	PROJECT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

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The Company will plan to perform the project included in the Information Technology cost projections, but the projections do not incorporate a specific confidence level. These costs were not projected with confidence levels. Rough Order Magnitude (ROM) estimates have been reduced by 20% as discussed in my testimony.

2025 Union Contract Changes			Report Pulled: 11/1/2024			Item ID: 13951				
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category		Comply - One Time				Work Type Project				
Alias		HR - 2020 Union Changes, Human Resources - 2020 Union Changes, Human Resources -2025 Union Contract Changes, People & Culture - 2025 Union Contract Changes, 2025 Union Contract Changes								
Description		The 2025 Union Contract Changes project will implement SAP and other system changes required as a result of three collective bargaining agreements which will be renegotiated and ratified. Collective bargaining agreements expire every five years for Operating Maintenance and Construction ("OM&C"), Virtual Contact Center ("VCC"), and Zeeland employee groups. For OM&C, the current agreement ends June 1, 2025. The VCC agreement ends August 1, 2025. The Zeeland agreement ends October 1, 2025.								
Portfolio		IT Services > Applications > Corporate Services > * > * > *								
Org		CX&T			Bus Unit INFORMATION TECHNOLOGY		Dept CX&T-IT-CORPORATE			
WORK OBJECTIVES										
Problem Statement		Collective bargaining agreements expire every five years for OM&C (Operating Maintenance and Construction), CCC (Customer Contact Center) and Zeeland employee groups. For OM&C, the current agreement ends June 1, 2025. CCC agreement ends in August 1, 2025. Zeeland agreement ends October 1, 2025. Technology changes are required to reflect these new agreements. Otherwise, employees in these union groups may not be paid appropriately or get correct benefits.								
Objectives		Completion of this project will provide value to the Company and its customers through: (1) waste elimination by making changes in the software for any pay and benefit changes as required by the new agreements; (2) defect reduction by adding process automation to otherwise manual processes for tracking and recording work, premium, and absence time; and (3) improved employee engagement among the OM&C, CCC, and Zeeland union employees.								
Scope		The scope of this project encompasses making any system changes required to support the new working agreement for the OM&C, CCC, and Zeeland employees. Exact details will be finalized after the negotiation process is completed and contracts are approved.								
Alternatives		Three alternatives were considered for this project: (1) Make no system changes after the contracts are ratified. This option was not chosen because it exposes the Company to possible fines, disengaged employees, union grievances, significant manual processes leading to greater possibility of error, hiring additional staff to perform activities outlined in the agreements, and increased legal costs due to employee grievances. (2) Find other third-party software to support the changes required by the union agreements. This option was not chosen because it would require SAP integration along with additional software licensing and maintenance costs. (3) Make system changes to eliminate manual updating, comply with the working agreement language, support union employee engagement, and reduce grievances. Option (3) was chosen because it leverages current SAP technology, automates what would otherwise require manual processing, and is the least costly option.								
DATES (phase end)										
Initiation		Project Plan & Scope Definition			Final Engineering, Planning & Design		Execution			
4/1/2025		5/15/2025			6/28/2025		12/17/2025			
		In-Service/Go-Live			Closeout					
		12/18/2025			5/1/2026					
FUNDING SUMMARY										
		2025	2026	2027	2028	2029	2030	2031	2032 +	Total
Cap+COR										
O&M		\$0.337	\$0.290	\$0.008	\$0.008	\$0.008	-	-	-	\$0.651
Total Cost of Ownership		\$0.337	\$0.290	\$0.008	\$0.008	\$0.008	-	-	-	\$0.651
		2025	2026	2027	2028	2029	2030	2031	2032 +	Total
Labor		\$0.141	\$0.114	-	-	-	-	-	-	\$0.255
Outside Services		\$0.174	\$0.149	-	-	-	-	-	-	\$0.323
Business Expense/Overheads		\$0.022	\$0.018	-	-	-	-	-	-	\$0.040
Employee Benefits		-	-	-	-	-	-	-	-	-
Materials		-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees		-	-	-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-	-	-
Total Project Cost		\$0.337	\$0.282	-	-	-	-	-	-	\$0.619
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS										
		2025	2026	2027	2028	2029	2030	2031	2032 +	Total
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.337	\$0.290	\$0.008	\$0.008	\$0.008	-	-	-	\$0.651
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.337	\$0.290	\$0.008	\$0.008	\$0.008	-	-	-	\$0.651
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000								
Risk Tolerance										
Corporate Risk		Impact	Likelihood	Description						
OTHER VALUE										
Type		Description								
Technology Capability		Administrative & General (A&G) Support								
Intangibles		Employee Engagement for the three union groups increases as measured annually in the areas of work/life balance and employee satisfaction.								
Avoided Costs		If system changes are not made to automate the changes in the union agreements, additional employees/contractors will need to be hired to manually make the changes. The actual number of employees/contractors is not known at this time since union negotiations have not been finalized.								
Intangibles		Union employees are engaged because they are being paid correctly per the union contract.								
Avoided Costs		When union employees are paid correctly, the chance of grievances and issues with the NLRB (National Labor Relations Board) decreases. Grievances cost the company time and money, including legal costs.								

AccessNOW		Report Pulled: 11/1/2024		Item ID: 6665					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Maintain - Interval			Work Type	Project				
Alias	Dell Identity Manager (CAAR Replacement), Directory Services Enhancements, Dell Identity Manager								
Description	The AccessNow project will implement configurable identity, Access Management functionality and best practices, and will enforce compliance.								
Portfolio	Corporate Services > Security Services > Security > * > * > *								
Org	CX&T	Bus Unit	SECURITY	Dept	Unspecified				
WORK OBJECTIVES									
Problem Statement	AccessNOW replaced the CAAR system enterprise wide in 2018Q4 with over 50,000 requests being made since product launch. However, AccessNOW's manual processes and lack of integration are leading to increased risk for human error and time spent on processes that can be automated.								
Objectives	This project will add value by: (1) reducing waste and failure points through automation; (2) improving and standardizing the business partner experience; (3) centralizing access management; (4) ensuring regulatory compliance; and (5) ensuring system stability and continuous improvement.								
Scope	The project scope includes implementing additional integrations to Active Directory domains that are not currently connected to the AccessNOW application (arccorp.com, DMZ.cms, ems.com, rtqa.cmsenergy.com, cipha.cmsenergy.com) and integration to the Company's SAP system(s) to allow for automation of SAP role access provisioning. In addition, the project scope includes: (1) design, configuration and testing of technical connections; (2) completion of application support pack upgrades to the next version(s) to maintain system stability and to stay current with vendor releases; and (3) review and implement enhancements to improve and standardize the business partner experience.								
Alternatives	As part of the review process the alternative considered was using manual processes. This option was not chosen because it was deemed too costly and inefficient.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
3/1/2019	4/5/2019 In-Service/Go-Live 3/1/2021		5/31/2019 Closeout 3/30/2021		7/31/2019				
FUNDING SUMMARY									
	2018	2019	2020	2021	2022	2023	2024	2025 +	Total
Cap+COR	\$1,427	\$0.205	\$1,239	\$0.725	\$0.365	-	\$0.431	-	\$4,392
O&M	\$0.433	\$0.164	\$0.197	\$0.534	\$0.248	-	\$0.027	-	\$1,604
Total Cost of Ownership	\$1,860	\$0.369	\$1,437	\$1,259	\$0.613	-	\$0.459	-	\$5,996
	2018	2019	2020	2021	2022	2023	2024	2025 +	Total
Labor	\$0.552	\$0.577	\$0.282	\$0.216	\$0.099	-	\$0.546	-	\$2,272
Outside Services	\$1,122	\$0.115	\$1,091	\$0.994	\$0.295	-	\$(0.103)	-	\$3,514
Business Expense/Overheads	\$0.184	\$(0.323)	\$0.063	\$0.048	\$0.017	-	\$0.008	\$(0.000)	\$(0.003)
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	\$0.002	-	-	\$0.000	-	-	\$0.008	-	\$0.010
Licenses, Permits & Fees	-	-	-	-	\$0.202	-	-	-	\$0.202
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	\$1,860	\$0.369	\$1,437	\$1,259	\$0.613	-	\$0.459	\$(0.000)	\$5,996
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2018	2019	2020	2021	2022	2023	2024	2025 +	Total
O&M									
Reduction	-	\$(0.104)	\$(0.104)	-	-	-	-	-	\$(0.208)
Initial	\$0.433	\$0.164	\$0.197	\$0.534	\$0.248	-	\$0.027	-	\$1,604
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.433	\$0.060	\$0.093	\$0.534	\$0.248	-	\$0.027	-	\$1,396
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$1,427	\$0.205	\$1,239	\$0.725	\$0.365	-	\$0.431	-	\$4,392
Incremental	-	-	-	-	-	-	-	-	-
Net	\$1,427	\$0.205	\$1,239	\$0.725	\$0.365	-	\$0.431	-	\$4,392
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-0.965							
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
Procedure & Work Methods	Medium	Medium	Manual processes are prone to human error, which could result in audit findings. We are striving to automate manual processes to automate this.						
OTHER VALUE									
Type	Description								
Technology Capability	Administrative & General (A&G) Support								
Avoided Costs	In 2019 & 2020, the Identity and Access Management Operations team will see positive impacts from an automated system. This will allow the team to avoid hiring additional contractors to keep up with the work.								
Intangibles	Morale boost. Replacing the Computer Access and Authorization request system, which was deemed one of the worse processes in the queue company, is considered a boost in company morale.								

Add Card Transaction Fees		Report Pulled: 11/1/2024		Item ID: 13409					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	<u>Strategic/Grow</u>			Work Type	<u>Project</u>				
Alias	<u>, Digital Payment Fee Implementation, Digital Payment Fee Implementation (BOO#316), Add Card Transaction Fees</u>								
Description	<u>This project will implement a customer paid transaction fee for all customer payments issued using a credit or debit card across all Paymentus payment channels reducing operational costs associated with payment processing.</u>								
Portfolio	<u>IT Services > Applications > Common Delivery Systems > * > * > *</u>								
Org	<u>CX&T</u>	Bus Unit	<u>INFORMATION TECHNOLOGY</u>	Dept	<u>CX&T-IT-CUSTOMER EXP & OPS</u>				
WORK OBJECTIVES									
Problem Statement	The Company's customers have embraced card payment methods and at present credit and debit card payments account for 35% of payment transactions with adoption continuing to increase. Consequently, the Company incurs an annual expenditure of over \$15 million to cover card payments. As customer adoption of credit and debit card payments increases, annual operating expenses will also continue to increase.								
Objectives	This project creates value for the Company and customers by: (1) updating all payment channels to enable customers to pay a fee for debit and credit card transactions; (2) reducing operating costs for payment processing; and (3) removing card payment restrictions on small and medium business customers.								
Scope	The project scope includes: (1) creating new payment messaging on bills to indicate card payment fee changes; (2) updating autopay functionality in all payment channels; (3) updating all payment channels to include a customer paid transaction fee when using card payment methods segmented by residential and business customers; (4) modifying existing integrations to support card transaction fee changes; and (5) educating customers regarding card transaction fee changes.								
Alternatives	Alternatives Considered include: (1) Implement a new Business Card Payment Portal which would allow the Company to distinguish between card types and charge a fee to non-residential customers who are utilizing high rebate card types. This alternative was not selected because it would require significant investment to create and maintain a separate business payment portal and the complex card rules which would minimize operating savings. (2) Implement a fee across all payment types, except autopay utilizing automated clearing house payments ("ACH"), in all payment channels for all customers. This alternative was not selected because implementing costs for ACH did not provide the optimal value and experience to customers. (3) Implement a fee for card payment transactions in all payment channels for all customers. This alternative was selected because it provides the best balance between achieving the project objectives, controlling costs, and optimizing value to customers.								
DATES (phase end)									
Initiation 3/1/2023	Project Plan & Scope Definition 3/10/2023 In-Service/Go-Live 9/30/2023		Final Engineering, Planning & Design 3/20/2023 Closeout 10/31/2023		Execution 9/29/2023				
FUNDING SUMMARY									
	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030 ±</u>	<u>Total</u>
Cap+COR	\$1.065	-	-	-	-	-	-	-	\$1.065
O&M	\$0.342	-	-	-	-	-	-	-	\$0.342
Total Cost of Ownership	\$1.407	-	-	-	-	-	-	-	\$1.407
	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030 ±</u>	<u>Total</u>
Labor	\$0.378	-	-	-	-	-	-	-	\$0.378
Outside Services	\$0.893	-	-	-	-	-	-	-	\$0.893
Business Expense/Overheads	\$0.135	-	-	-	-	-	-	-	\$0.135
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	\$1.407	-	-	-	-	-	-	-	\$1.407
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030 ±</u>	<u>Total</u>
O&M									
Reduction	\$(3.066)	\$(15.000)	\$(15.000)	\$(15.000)	\$(15.000)	\$(15.000)	-	-	\$(78.066)
Initial	\$0.342	-	-	-	-	-	-	-	\$0.342
Incremental	-	-	-	-	-	-	-	-	-
Net	\$(2.724)	\$(15.000)	\$(15.000)	\$(15.000)	\$(15.000)	\$(15.000)	-	-	\$(77.724)
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$1.065	-	-	-	-	-	-	-	\$1.065
Incremental	-	-	-	-	-	-	-	-	-
Net	\$1.065	-	-	-	-	-	-	-	\$1.065
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		40.403							
Risk Tolerance									
<u>Corporate Risk</u>	<u>Impact</u>	<u>Likelihood</u>	<u>Description</u>						
OTHER VALUE									
<u>Type</u>	<u>Description</u>								
Intangibles	Improved overall customer experience for small and medium businesses ("SMB") due to removing restrictions on card payments. The Company has received direct feedback from SMB customers stating they rely on card payments to successfully manage their businesses and pay bills on time.								

Application Currency-Corporate Services-O&M				Report Pulled: 11/1/2024				Item ID: 10253											
EXECUTIVE SUMMARY																			
BASIC INFORMATION																			
Work Category		Maintain - Interval						Work Type		Project									
Alias		, Application Currency and Enhancements – Corporate Services - O&M, Application Currency – Corporate Services - O&M, Application Currency-Corporate Services-O&M																	
Description		The Corporate Services initiative will utilize O&M funding to keep applications current for security and reliability.																	
Portfolio		IT Services > Applications > Corporate Services > * > * > *																	
Org		CX&T			Bus Unit			INFORMATION TECHNOLOGY		Dept CX&T-IT-PLANNING & GOV									
WORK OBJECTIVES																			
Problem Statement		The Company manages a large number of applications in the technology landscape that require regular version upgrades to maintain vendor-supported software versions. Without vendor supported versions, the Company loses the ability to receive version updates and upgrades to address defects, patch security vulnerabilities, protect against cyberthreats, protect data, and add new features. Failure to upgrade these applications can have a direct negative impact on key customer and business processes, increase support costs, increase unplanned outages, and increase cyber security vulnerabilities.																	
Objectives		Maintaining the appropriate versions of applications through application currency upgrades in the Corporate Services adds value by: (1) enabling the Company to maintain vendor support, (2) remediating vendor security vulnerabilities and enhancing security protections; (3) addressing vendor defects that impair stability and functionality, leading to fewer incidents due to outdated software; and (4) addressing version interdependencies and compatibility between systems. This is essential to delivering safe, reliable, and affordable service to the Company's customers.																	
Scope		The application upgrades in scope are regularly prioritized based on considerations that include application criticality; number of versions behind the current available version; security and operational risk; operational impacts of performing the upgrade; ability to defer; and cost. The scope of upgrading these applications encompasses: (1) upgrading the application software, (2) assessing any new functionality for value to the Company, (3) making necessary configuration changes, (5) testing the upgraded software, and (5) updating documentation related to the integration changes.																	
Alternatives		Applications within the Corporate Services are routinely evaluated to determine if and what upgrade efforts are necessary to maintain an appropriate level of currency, as well as the priority of those efforts. During that review, the alternative of delaying the timing of the individual upgrades is considered based on: (1) maintaining an optimal balance between keeping the application current and risking failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) preventing employees from performing their daily tasks. This project makes ongoing upgrades and support for these applications possible and fortifies the Company's ability to keep the large number of applications in the technology landscape secure and operational through upgrades. Without these upgrades, the Company will fall further behind in maintaining vendor-supported software versions, increasing the cost and complexity of the upgrade in the future.																	
DATES (phase end)																			
Initiation		Project Plan & Scope Definition				Final Engineering, Planning & Design				Execution									
		In-Service/Go-Live				Closeout													
FUNDING SUMMARY																			
		2023		2024		2025		2026		2027		2028		2029		2030 +		Total	
Cap+COR		-		-		-		-		-		-		-		-		-	
O&M		\$0.197		\$0.493		-		-		-		-		-		-		\$0.691	
Total Cost of Ownership		\$0.197		\$0.493		-		-		-		-		-		-		\$0.691	
		2023		2024		2025		2026		2027		2028		2029		2030 +		Total	
Labor		\$0.024		\$0.455		-		-		-		-		-		-		\$0.479	
Outside Services		\$0.130		\$0.038		-		-		-		-		-		-		\$0.168	
Business Expense/Overheads		\$0.003		\$0.000		-		-		-		-		-		-		\$0.004	
Employee Benefits		-		-		-		-		-		-		-		-		-	
Materials		-		-		-		-		-		-		-		-		-	
Licenses, Permits & Fees		\$0.041		-		-		-		-		-		-		-		\$0.041	
Other		-		-		-		-		-		-		-		-		-	
Total Project Cost (Annual)		\$0.197		\$0.493		-		-		-		-		-		-		\$0.691	
VALUE & IMPACTS SUMMARY																			
FINANCIAL IMPACTS		2023		2024		2025		2026		2027		2028		2029		2030 +		Total	
O&M		Reduction		-		-		-		-		-		-		-		-	
		Initial		\$0.197		\$0.493		-		-		-		-		-		\$0.691	
		Incremental		-		-		-		-		-		-		-		-	
		Net		\$0.197		\$0.493		-		-		-		-		-		\$0.691	
Cap+COR		Reduction		-		-		-		-		-		-		-		-	
		Initial		-		-		-		-		-		-		-		-	
		Incremental		-		-		-		-		-		-		-		-	
		Net		-		-		-		-		-		-		-		-	
Revenue		Reduction		-		-		-		-		-		-		-		-	
		Initial		-		-		-		-		-		-		-		-	
		Incremental		-		-		-		-		-		-		-		-	
		Net		-		-		-		-		-		-		-		-	
				B/C Ratio (Overall)				-1.000											
Risk Tolerance																			
Corporate Risk		Impact		Likelihood		Description													
OTHER VALUE																			
Type		Description																	
Technology Capability		Administrative & General (A&G) Support																	
Risk Mitigation		Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.																	

Application Currency-Corporate-Capital		Report Pulled: 11/1/2024		Item ID: 13356					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Maintain - Interval			Work Type	Project				
Alias	. Application Currency-Corporate-Capital								
Description	The Corporate Services initiative will utilize both Capital and O&M funding to keep applications current for security and reliability. O&M is included in this project to complete expense activities associated with Capital upgrades.								
Portfolio	IT Services > Applications > Corporate Services > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-CORPORATE				
WORK OBJECTIVES									
Problem Statement	The Company manages a large number of applications in the technology landscape that require regular version upgrades to maintain vendor-supported software versions. Without vendor supported versions, the Company loses the ability to receive version updates and upgrades to address defects, patch security vulnerabilities, protect against cyberthreats, protect data, and add new features. Failure to upgrade these applications can have a direct negative impact on key customer and business processes, increase support costs, increase unplanned outages, and increase cyber security vulnerabilities.								
Objectives	Maintaining the appropriate versions of applications through application currency upgrades in the Corporate Services adds value by: (1) enabling the Company to maintain vendor support; (2) remediating vendor security vulnerabilities and enhancing security protections; (3) addressing vendor defects that impair stability and functionality, leading to fewer incidents due to outdated software; and (4) addressing version interdependencies and compatibility between systems. This is essential to delivering safe, reliable, and affordable service to the Company's customers.								
Scope	The application upgrades in scope are regularly prioritized based on considerations that include application criticality; number of versions behind the current available version; security and operational risk; operational impacts of performing the upgrade; ability to defer; and cost. The scope of upgrading these applications encompasses: (1) upgrading the application software and respective database, (2) assessing any new functionality for value to the Company, (3) making necessary configuration changes, (5) testing the upgraded software, and (5) updating documentation related to the integration changes.								
Alternatives	Applications within the Corporate Services are routinely evaluated to determine if and what upgrade efforts are necessary to maintain an appropriate level of currency, as well as the priority of those efforts. During that review, the alternative of delaying the timing of the individual upgrades is considered based on: (1) maintaining an optimal balance between keeping the application current and risking failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) preventing employees from performing their daily tasks. This project makes ongoing upgrades and support for these applications possible and fortifies the Company's ability to keep the large number of applications in the technology landscape secure and operational through upgrades. Without these upgrades, the Company will fall further behind in maintaining vendor-supported software versions, increasing the cost and complexity of the upgrade in the future.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
	In-Service/Go-Live		Closeout						
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	\$0.125	\$0.210	\$0.057	\$0.197	\$0.057	\$0.057	\$0.057	-	\$0.762
O&M	-	-	\$0.005	\$0.019	\$0.005	\$0.005	\$0.005	-	\$0.040
Total Cost of Ownership	\$0.125	\$0.210	\$0.063	\$0.216	\$0.063	\$0.063	\$0.063	-	\$0.802
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	\$0.125	\$0.150	\$0.010	\$0.034	\$0.010	\$0.010	\$0.010	-	\$0.349
Outside Services	-	-	-	-	-	-	-	-	-
Business Expense/Overheads	-	\$0.060	\$0.003	\$0.012	\$0.003	\$0.003	\$0.003	-	\$0.083
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	\$0.050	\$0.170	\$0.050	\$0.050	\$0.050	-	\$0.370
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)	\$0.125	\$0.210	\$0.063	\$0.216	\$0.063	\$0.063	\$0.063	-	\$0.802
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	\$0.005	\$0.019	\$0.005	\$0.005	\$0.005	-	\$0.040
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	\$0.005	\$0.019	\$0.005	\$0.005	\$0.005	-	\$0.040
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.125	\$0.210	\$0.057	\$0.197	\$0.057	\$0.057	\$0.057	-	\$0.762
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.125	\$0.210	\$0.057	\$0.197	\$0.057	\$0.057	\$0.057	-	\$0.762
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-1.000						
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Technology Capability	Administrative & General (A&G) Support								
Risk Mitigation	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.								

Application Currency-Corporate-O&M				Report Pulled: 11/1/2024				Item ID: 13357				
EXECUTIVE SUMMARY												
BASIC INFORMATION												
Work Category	Maintain - Interval					Work Type	Project					
Alias	. Application Currency-Corporate-O&M											
Description	The Corporate Services initiative will utilize O&M funding to keep applications current for security and reliability.											
Portfolio	IT Services > Applications > Corporate Services > * > * > *											
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY				Dept	CX&T-IT-CORPORATE				
WORK OBJECTIVES												
Problem Statement	The Company manages a large number of applications in the technology landscape that require regular version upgrades to maintain vendor-supported software versions. Without vendor supported versions, the Company loses the ability to receive version updates and upgrades to address defects, patch security vulnerabilities, protect against cyberthreats, protect data, and add new features. Failure to upgrade these applications can have a direct negative impact on key customer and business processes, increase support costs, increase unplanned outages, and increase cyber security vulnerabilities.											
Objectives	Maintaining the appropriate versions of applications through application currency upgrades in the Corporate Services adds value by: (1) enabling the Company to maintain vendor support; (2) remediating vendor security vulnerabilities and enhancing security protections; (3) addressing vendor defects that impair stability and functionality, leading to fewer incidents due to outdated software; and (4) addressing version interdependencies and compatibility between systems. This is essential to delivering safe, reliable, and affordable service to the Company's customers.											
Scope	The application upgrades in scope are regularly prioritized based on considerations that include application criticality; number of versions behind the current available version; security and operational risk; operational impacts of performing the upgrade; ability to defer; and cost. The scope of upgrading these applications encompasses: (1) upgrading the application software and respective database, (2) assessing any new functionality for value to the Company, (3) making necessary configuration changes, (5) testing the upgraded software, and (5) updating documentation related to the integration changes.											
Alternatives	Applications within the Corporate Services are routinely evaluated to determine if and what upgrade efforts are necessary to maintain an appropriate level of currency, as well as the priority of those efforts. During that review, the alternative of delaying the timing of the individual upgrades is considered based on: (1) maintaining an optimal balance between keeping the application current and risking failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) preventing employees from performing their daily tasks. This project makes ongoing upgrades and support for these applications possible and fortifies the Company's ability to keep the large number of applications in the technology landscape secure and operational through upgrades. Without these upgrades, the Company will fall further behind in maintaining vendor-supported software versions, increasing the cost and complexity of the upgrade in the future.											
DATES (phase end)												
Initiation	Project Plan & Scope Definition				Final Engineering, Planning & Design				Execution			
	In-Service/Go-Live				Closeout							
FUNDING SUMMARY												
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total			
Cap+COR	-	-	-	-	-	-	-	-	-			
O&M	\$0.258	\$0.508	\$0.372	\$0.333	\$0.279	\$0.288	\$0.279	-	\$2.317			
Total Cost of Ownership	\$0.258	\$0.508	\$0.372	\$0.333	\$0.279	\$0.288	\$0.279	-	\$2.317			
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total			
Labor	\$0.186	\$0.475	\$0.348	\$0.311	\$0.261	\$0.269	\$0.261	-	\$2.111			
Outside Services	\$0.068	-	-	-	-	-	-	-	\$0.068			
Business Expense/Overheads	\$0.003	\$0.033	\$0.024	\$0.022	\$0.018	\$0.019	\$0.018	-	\$0.138			
Employee Benefits	-	-	-	-	-	-	-	-	-			
Materials	\$0.000	-	-	-	-	-	-	-	\$0.000			
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-			
Other	-	-	-	-	-	-	-	-	-			
Total Project Cost (Annual)	\$0.258	\$0.508	\$0.372	\$0.333	\$0.279	\$0.288	\$0.279	-	\$2.317			
VALUE & IMPACTS SUMMARY												
FINANCIAL IMPACTS												
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total			
O&M												
Reduction	-	-	-	-	-	-	-	-	-			
Initial	\$0.258	\$0.508	\$0.372	\$0.333	\$0.279	\$0.288	\$0.279	-	\$2.317			
Incremental	-	-	-	-	-	-	-	-	-			
Net	\$0.258	\$0.508	\$0.372	\$0.333	\$0.279	\$0.288	\$0.279	-	\$2.317			
Cap+COR												
Reduction	-	-	-	-	-	-	-	-	-			
Initial	-	-	-	-	-	-	-	-	-			
Incremental	-	-	-	-	-	-	-	-	-			
Net	-	-	-	-	-	-	-	-	-			
Revenue												
Reduction	-	-	-	-	-	-	-	-	-			
Initial	-	-	-	-	-	-	-	-	-			
Incremental	-	-	-	-	-	-	-	-	-			
Net	-	-	-	-	-	-	-	-	-			
B/C Ratio (Overall)										-1.000		
Risk Tolerance												
Corporate Risk	Impact	Likelihood	Description									
OTHER VALUE												
Type	Description											
Technology Capability	Administrative & General (A&G) Support											
Risk Mitigation	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.											

Application Currency-Customer-O&M			Report Pulled: 11/1/2024			Item ID: 13359				
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Maintain - Interval					Work Type	Project			
Alias	. Application Currency-Customer-O&M									
Description	The Customer initiative will utilize O&M funding to keep applications current for security and reliability.									
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *									
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY			Dept	CX&T-IT-CUSTOMER EXP & OPS			
WORK OBJECTIVES										
Problem Statement	The Company manages a large number of applications in the technology landscape that require regular version upgrades to maintain vendor-supported software versions. Without vendor supported versions, the Company loses the ability to receive version updates and upgrades to address defects, patch security vulnerabilities, protect against cyberthreats, protect data, and add new features. Failure to upgrade these applications can have a direct negative impact on key customer and business processes, increase support costs, increase unplanned outages, and increase cyber security vulnerabilities.									
Objectives	Maintaining the appropriate versions of applications through application currency upgrades to the Customer digital assets adds value by: (1) enabling the Company to maintain vendor support; (2) remediating vendor security vulnerabilities and enhancing security protections; (3) addressing vendor defects that impair stability and functionality, leading to fewer incidents due to outdated software; and (4) addressing version interdependencies and compatibility between systems. This is essential to delivering safe, reliable, and affordable service to the Company's customers.									
Scope	The application upgrades in scope are regularly prioritized based on considerations that include application criticality; number of versions behind the current available version; security and operational risk; operational impacts of performing the upgrade; ability to defer; and cost. The scope of upgrading these applications encompasses: (1) upgrading the application software, (2) assessing any new functionality for value to the Company, (3) making necessary configuration changes, (5) testing the upgraded software, and (5) updating documentation related to the integration changes.									
Alternatives	Applications within Customer are routinely evaluated to determine if and what upgrade efforts are necessary to maintain an appropriate level of currency, as well as the priority of those efforts. During that review, the alternative of delaying the timing of the individual upgrades is considered based on: (1) maintaining an optimal balance between keeping the application current and risking failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) preventing employees from performing their daily tasks. This project makes ongoing upgrades and support for these applications possible and fortifies the Company's ability to keep the large number of applications in the technology landscape secure and operational through upgrades. Without these upgrades, the Company will fall further behind in maintaining vendor-supported software versions, increasing the cost and complexity of the upgrade in the future.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution			
	In-Service/Go-Live			Closeout						
FUNDING SUMMARY										
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Cap+COR	-	-	-	-	-	-	-	-	-	
O&M	\$0.110	\$0.174	\$0.010	\$0.180	\$0.008	\$0.174	\$0.008	-	\$0.664	
Total Cost of Ownership	\$0.110	\$0.174	\$0.010	\$0.180	\$0.008	\$0.174	\$0.008	-	\$0.664	
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Labor	\$0.093	\$0.163	\$0.010	\$0.168	\$0.007	\$0.163	\$0.007	-	\$0.611	
Outside Services	\$0.016	-	-	-	-	-	-	-	\$0.016	
Business Expense/Overheads	\$0.000	\$0.011	\$0.001	\$0.012	\$0.000	\$0.011	\$0.000	-	\$0.037	
Employee Benefits	-	-	-	-	-	-	-	-	-	
Materials	\$0.001	-	-	-	-	-	-	-	\$0.001	
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost (Annual)	\$0.110	\$0.174	\$0.010	\$0.180	\$0.008	\$0.174	\$0.008	-	\$0.664	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.110	\$0.174	\$0.010	\$0.180	\$0.008	\$0.174	\$0.008	-	\$0.664
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.110	\$0.174	\$0.010	\$0.180	\$0.008	\$0.174	\$0.008	-	\$0.664
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000								
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									
Technology Capability	Customer Management									
Risk Mitigation	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.									

Application Currency-CX&O-Capital		Report Pulled: 11/1/2024		Item ID: 8890					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Maintain - Interval			Work Type	Project				
Alias	, Application Currency and Enhancements - CE&O - Capital, Application Currency - CE&O - Capital, Application Currency-CE&O-Capital, Application Currency-CX&O-Capital								
Description	The CX&O initiative will utilize both Capital and O&M funding to keep applications current for security and reliability. O&M is included in this project to complete expense activities associated with Capital upgrades.								
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-CUSTOMER EXP & OPS				
WORK OBJECTIVES									
Problem Statement	The Company manages a large number of applications in the technology landscape that require regular version upgrades to maintain vendor-supported software versions. Without vendor supported versions, the Company loses the ability to receive version updates and upgrades to address defects, patch security vulnerabilities, protect against cyberthreats, protect data, and add new features. Failure to upgrade these applications can have a direct negative impact on key customer and business processes, increase support costs, increase unplanned outages, and increase cyber security vulnerabilities.								
Objectives	Maintaining the appropriate versions of applications through application currency upgrades in the CX&O adds value by: (1) enabling the Company to maintain vendor support; (2) remediating vendor security vulnerabilities and enhancing security protections; (3) addressing vendor defects that impair stability and functionality, leading to fewer incidents due to outdated software; and (4) addressing version interdependencies and compatibility between systems. This is essential to delivering safe, reliable, and affordable service to the Company's customers.								
Scope	The application upgrades in scope are regularly prioritized based on considerations that include application criticality; number of versions behind the current available version; security and operational risk; operational impacts of performing the upgrade; ability to defer; and cost. The scope of upgrading these applications encompasses: (1) upgrading the application software, (2) assessing any new functionality for value to the Company, (3) making necessary configuration changes, (5) testing the upgraded software, and (5) updating documentation related to the integration changes.								
Alternatives	Applications within the CX&O are routinely evaluated to determine if and what upgrade efforts are necessary to maintain an appropriate level of currency, as well as the priority of those efforts. During that review, the alternative of delaying the timing of the individual upgrades is considered based on: (1) maintaining an optimal balance between keeping the application current and risking failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) preventing employees from performing their daily tasks. This project makes ongoing upgrades and support for these applications possible and fortifies the Company's ability to keep the large number of applications in the technology landscape secure and operational through upgrades. Without these upgrades, the Company will fall further behind in maintaining vendor-supported software versions, increasing the cost and complexity of the upgrade in the future.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
	In-Service/Go-Live		Closeout						
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	-	-	-	-	-	-	-	-	-
O&M	\$0.116	\$0.091	-	-	-	-	-	-	\$0.207
Total Cost of Ownership	\$0.116	\$0.091	-	-	-	-	-	-	\$0.207
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	\$0.030	\$0.027	-	-	-	-	-	-	\$0.057
Outside Services	\$0.084	\$0.063	-	-	-	-	-	-	\$0.146
Business Expense/Overheads	\$0.003	\$0.001	-	-	-	-	-	-	\$0.004
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)	\$0.116	\$0.091	-	-	-	-	-	-	\$0.207
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.116	\$0.091	-	-	-	-	-	-	\$0.207
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.116	\$0.091	-	-	-	-	-	-	\$0.207
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-1.000						
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Technology Capability	Administrative & General (A&G) Support								
Risk Mitigation	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.								

App Curr-CX&O-O&M

Application Currency-Electric & Gas Shared-Capital				Report Pulled: 11/1/2024				Item ID: 13360											
EXECUTIVE SUMMARY																			
BASIC INFORMATION																			
Work Category		Maintain - Interval				Work Type				Project									
Alias		. Application Currency-Electric & Gas Shared-Capital																	
Description		The Electric and Gas operations initiative will utilize both Capital and O&M funding to keep applications current for security and reliability. O&M is included in this project to complete expense activities associated with Capital upgrades.																	
Portfolio		IT Services > Applications > Common Delivery Systems > * > * > *																	
Org		CX&T		Bus Unit		INFORMATION TECHNOLOGY		Dept		CX&T-IT-WORK MANAGEMENT									
WORK OBJECTIVES																			
Problem Statement		The Company manages a large number of applications in the technology landscape that require regular version upgrades to maintain vendor-supported software versions. Without vendor supported versions, the Company loses the ability to receive version updates and upgrades to address defects, patch security vulnerabilities, protect against cyberthreats, protect data, and add new features. Failure to upgrade these applications can have a direct negative impact on key customer and business processes, increase support costs, increase unplanned outages, and increase cyber security vulnerabilities.																	
Objectives		Maintaining the appropriate versions of applications through application currency upgrades to the Electric and Gas operations digital assets adds value by: (1) enabling the Company to maintain vendor support; (2) remediating vendor security vulnerabilities and enhancing security protections; (3) addressing vendor defects that impair stability and functionality, leading to fewer incidents due to outdated software; and (4) addressing version interdependencies and compatibility between systems. This is essential to delivering safe, reliable, and affordable service to the Company's customers.																	
Scope		The application upgrades in scope are regularly prioritized based on considerations that include application criticality; number of versions behind the current available version; security and operational risk; operational impacts of performing the upgrade; ability to defer; and cost. The scope of upgrading these applications encompasses: (1) upgrading the application software, (2) assessing any new functionality for value to the Company, (3) making necessary configuration changes, (5) testing the upgraded software, and (5) updating documentation related to the integration changes.																	
Alternatives		Applications within the Electric and Gas operations are routinely evaluated to determine if and what upgrade efforts are necessary to maintain an appropriate level of currency, as well as the priority of those efforts. During that review, the alternative of delaying the timing of the individual upgrades is considered based on: (1) maintaining an optimal balance between keeping the application current and risking failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) preventing employees from performing their daily tasks. This project makes ongoing upgrades and support for these applications possible and fortifies the Companys ability to keep the large number of applications in the technology landscape secure and operational through upgrades. Without these upgrades, the Company will fall further behind in maintaining vendor-supported software versions, increasing the cost and complexity of the upgrade in the future.																	
DATES (phase end)																			
Initiation		Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution											
		In-Service/Go-Live			Closeout														
FUNDING SUMMARY																			
		2023		2024		2025		2026		2027		2028		2029		2030 +		Total	
Cap+COR		\$0.071		\$0.714		\$0.124		\$0.394		\$0.090		\$0.340		-		-		\$1.733	
O&M		\$0.002		\$0.342		\$0.184		\$0.034		\$0.453		\$0.188		-		-		\$1.202	
Total Cost of Ownership		\$0.073		\$1.056		\$0.308		\$0.428		\$0.543		\$0.528		-		-		\$2.936	
		2023		2024		2025		2026		2027		2028		2029		2030 +		Total	
Labor		\$0.034		\$0.336		\$0.222		\$0.241		\$0.400		\$0.346		-		-		\$1.579	
Outside Services		\$0.028		\$0.044		-		-		\$0.020		-		-		-		\$0.092	
Business Expense/Overheads		\$0.012		\$0.039		\$0.036		\$0.117		\$0.028		\$0.092		-		-		\$0.323	
Employee Benefits		-		-		-		-		-		-		-		-		-	
Materials		-		-		\$0.050		\$0.070		\$0.095		\$0.090		-		-		\$0.305	
Licenses, Permits & Fees		-		\$0.637		-		-		-		-		-		-		\$0.637	
Other		-		-		-		-		-		-		-		-		-	
Total Project Cost (Annual)		\$0.073		\$1.056		\$0.308		\$0.428		\$0.543		\$0.528		-		-		\$2.936	
VALUE & IMPACTS SUMMARY																			
FINANCIAL IMPACTS		2023		2024		2025		2026		2027		2028		2029		2030 +		Total	
O&M		Reduction		-		-		-		-		-		-		-		-	
		Initial		\$0.002		\$0.342		\$0.184		\$0.034		\$0.453		\$0.188		-		\$1.202	
		Incremental		-		-		-		-		-		-		-		-	
		Net		\$0.002		\$0.342		\$0.184		\$0.034		\$0.453		\$0.188		-		\$1.202	
Cap+COR		Reduction		-		-		-		-		-		-		-		-	
		Initial		\$0.071		\$0.714		\$0.124		\$0.394		\$0.090		\$0.340		-		\$1.733	
		Incremental		-		-		-		-		-		-		-		-	
		Net		\$0.071		\$0.714		\$0.124		\$0.394		\$0.090		\$0.340		-		\$1.733	
Revenue		Reduction		-		-		-		-		-		-		-		-	
		Initial		-		-		-		-		-		-		-		-	
		Incremental		-		-		-		-		-		-		-		-	
		Net		-		-		-		-		-		-		-		-	
		B/C Ratio (Overall)																-1.000	
Risk Tolerance																			
Corporate Risk		Impact		Likelihood		Description													
OTHER VALUE																			
Type		Description																	
Technology Capability		Administrative & General (A&G) Support																	
Risk Mitigation		Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.																	

Application Currency-Electric & Gas Shared-O&M				Report Pulled: 11/1/2024		Item ID: 13361			
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Maintain - Interval				Work Type	Project			
Alias	, Application Currency-Electric & Gas Shared-O&M								
Description	The Electric and Gas Operations initiative will utilize O&M funding to keep applications current for security and reliability.								
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY		Dept	CX&T-IT-WORK MANAGEMENT			
WORK OBJECTIVES									
Problem Statement	The Company manages a large number of applications in the technology landscape that require regular version upgrades to maintain vendor-supported software versions. Without vendor supported versions, the Company loses the ability to receive version updates and upgrades to address defects, patch security vulnerabilities, protect against cyberthreats, protect data, and add new features. Failure to upgrade these applications can have a direct negative impact on key customer and business processes, increase support costs, increase unplanned outages, and increase cyber security vulnerabilities.								
Objectives	Maintaining the appropriate versions of applications through application currency upgrades to the Electric and Gas Operations digital assets adds value by: (1) enabling the Company to maintain vendor support; (2) remediating vendor security vulnerabilities and enhancing security protections; (3) addressing vendor defects that impair stability and functionality, leading to fewer incidents due to outdated software; and (4) addressing version interdependencies and compatibility between systems. This is essential to delivering safe, reliable, and affordable service to the Company's customers.								
Scope	The application upgrades in scope are regularly prioritized based on considerations that include application criticality; number of versions behind the current available version; security and operational risk; operational impacts of performing the upgrade; ability to defer; and cost. The scope of upgrading these applications encompasses: (1) upgrading the application software, (2) assessing any new functionality for value to the Company, (3) making necessary configuration changes, (5) testing the upgraded software, and (5) updating documentation related to the integration changes.								
Alternatives	Applications within the Electric and Gas Operations are routinely evaluated to determine if and what upgrade efforts are necessary to maintain an appropriate level of currency, as well as the priority of those efforts. During that review, the alternative of delaying the timing of the individual upgrades is considered based on: (1) maintaining an optimal balance between keeping the application current and risking failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) preventing employees from performing their daily tasks. This project makes ongoing upgrades and support for these applications possible and fortifies the Company's ability to keep the large number of applications in the technology landscape secure and operational through upgrades. Without these upgrades, the Company will fall further behind in maintaining vendor-supported software versions, increasing the cost and complexity of the upgrade in the future.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design			Execution			
	In-Service/Go-Live		Closeout						
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	-	-	-	-	-	-	-	-	-
O&M	\$0.006	\$0.122	\$0.493	\$0.635	\$0.466	\$0.759	\$0.224	-	\$2.705
Total Cost of Ownership	\$0.006	\$0.122	\$0.493	\$0.635	\$0.466	\$0.759	\$0.224	-	\$2.705
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	\$0.002	\$0.075	\$0.448	\$0.594	\$0.423	\$0.696	\$0.199	-	\$2.436
Outside Services	\$0.003	\$0.045	\$0.014	-	\$0.014	\$0.014	\$0.011	-	\$0.101
Business Expense/Overheads	\$0.000	\$0.002	\$0.031	\$0.042	\$0.030	\$0.049	\$0.014	-	\$0.168
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)	\$0.006	\$0.122	\$0.493	\$0.635	\$0.466	\$0.759	\$0.224	-	\$2.705
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	-	-	-	-	-	-	-	-	-
Initial	\$0.006	\$0.122	\$0.493	\$0.635	\$0.466	\$0.759	\$0.224	-	\$2.705
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.006	\$0.122	\$0.493	\$0.635	\$0.466	\$0.759	\$0.224	-	\$2.705
Cap+COR	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-1.000						
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Technology Capability	Administrative & General (A&G) Support								
Risk Mitigation	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.								

Application Currency-EPS-O&M		Report Pulled: 11/1/2024		Item ID: 6730						
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Maintain - Interval		Work Type	Project						
Alias	Enhancements - TSM, Application Currency and Enhancements - Infrastructure Applications and Operations - O&M, Application Currency and Enhancements - IAO - O&M, Application Currency - IAO - O&M, Application Currency-IAO-O&M, Application Currency-EPS-O&M									
Description	The EPS (formerly IAO) initiative will utilize O&M funding to keep applications current for security and reliability.									
Portfolio	IT Services > Infrastructure > Network Services > * > * > *									
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-ENTERPRISE PRODUCTS AND SER					
WORK OBJECTIVES										
Problem Statement	The Company manages a large number of applications in the technology landscape that require regular version upgrades to maintain vendor-supported software versions. Without vendor supported versions, the Company loses the ability to receive version updates and upgrades to address defects, patch security vulnerabilities, protect against cyberthreats, protect data, and add new features. Failure to upgrade these applications can have a direct negative impact on key customer and business processes, increase support costs, increase unplanned outages, and increase cyber security vulnerabilities.									
Objectives	Maintaining the appropriate versions of applications through application currency upgrades in the EPS adds value by: (1) enabling the Company to maintain vendor support; (2) remediating vendor security vulnerabilities and enhancing security protections; (3) addressing vendor defects that impair stability and functionality, leading to fewer incidents due to outdated software; and (4) addressing version interdependencies and compatibility between systems. This is essential to delivering safe, reliable, and affordable service to the Company's customers. The application upgrades in scope are regularly prioritized based on considerations that include application criticality; number of versions behind the current available version; security and operational risk; operational impacts of performing the upgrade; ability to defer; and cost.									
Scope	The scope of upgrading these applications encompasses: (1) upgrading the application software, (2) assessing any new functionality for value to the Company, (3) making necessary configuration changes, (5) testing the upgraded software, and (5) updating documentation related to the integration changes.									
Alternatives	Applications within the EPS are routinely evaluated to determine if and what upgrade efforts are necessary to maintain an appropriate level of currency, as well as the priority of those efforts. During that review, the alternative of delaying the timing of the individual upgrades is considered based on: (1) maintaining an optimal balance between keeping the application current and risking failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) preventing employees from performing their daily tasks. This project makes ongoing upgrades and support for these applications possible and fortifies the Company's ability to keep the large number of applications in the technology landscape secure and operational through upgrades. Without these upgrades, the Company will fall further behind in maintaining vendor-supported software versions, increasing the cost and complexity of the upgrade in the future.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution					
	In-Service/Go-Live		Closeout							
FUNDING SUMMARY										
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Cap+COR			-	-	-	-	-	-		
O&M	\$0.085	\$0.217	-	-	-	-	-	-	\$0.302	
Total Cost of Ownership	\$0.085	\$0.217	-	-	-	-	-	-	\$0.302	
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Labor	\$0.045	\$0.141	-	-	-	-	-	-	\$0.186	
Outside Services	\$0.034	\$0.070	-	-	-	-	-	-	\$0.104	
Business Expense/Overheads	\$0.005	\$0.006	-	-	-	-	-	-	\$0.011	
Employee Benefits	-	-	-	-	-	-	-	-	-	
Materials	-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost (Annual)	\$0.085	\$0.217	-	-	-	-	-	-	\$0.302	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.085	\$0.217	-	-	-	-	-	-	\$0.302
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.085	\$0.217	-	-	-	-	-	-	\$0.302
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000								
Risk Tolerance										
Corporate Risk		Impact	Likelihood	Description						
OTHER VALUE										
Type		Description								
Technology Capability		Administrative & General (A&G) Support								
Intangibles		Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.								

App Curr-Gas-Cap

Application Currency-Gas-O&M				Report Pulled: 11/1/2024				Item ID: 13365				
EXECUTIVE SUMMARY												
BASIC INFORMATION												
Work Category	<u>Maintain - Interval</u>					Work Type	<u>Project</u>					
Alias	<u>. Application Currency-Gas-O&M</u>											
Description	The Gas Engineering and Operations initiative will utilize O&M funding to keep applications current for security and reliability.											
Portfolio	<u>IT Services > Applications > Gas Delivery Systems > * > * > *</u>											
Org	<u>CX&T</u>	Bus Unit	<u>INFORMATION TECHNOLOGY</u>				Dept	<u>CX&T-IT-GAS</u>				
WORK OBJECTIVES												
Problem Statement	The Company manages a large number of applications in the technology landscape that require regular version upgrades to maintain vendor-supported software versions. Without vendor supported versions, the Company loses the ability to receive version updates and upgrades to address defects, patch security vulnerabilities, protect against cyberthreats, protect data, and add new features. Failure to upgrade these applications can have a direct negative impact on key customer and business processes, increase support costs, increase unplanned outages, and increase cyber security vulnerabilities.											
Objectives	Maintaining the appropriate versions of applications through application currency upgrades to the Gas Engineering and Operations digital assets adds value by: (1) enabling the Company to maintain vendor support; (2) remediating vendor security vulnerabilities and enhancing security protections; (3) addressing vendor defects that impair stability and functionality, leading to fewer incidents due to outdated software; and (4) addressing version interdependencies and compatibility between systems. This is essential to delivering safe, reliable, and affordable service to the Company's customers.											
Scope	The application upgrades in scope are regularly prioritized based on considerations that include application criticality; number of versions behind the current available version; security and operational risk; operational impacts of performing the upgrade; ability to defer; and cost. The scope of upgrading these applications encompasses: (1) upgrading the application software, (2) assessing any new functionality for value to the Company, (3) making necessary configuration changes, (5) testing the upgraded software, and (5) updating documentation related to the integration changes.											
Alternatives	Applications within the Gas Engineering and Operations are routinely evaluated to determine if and what upgrade efforts are necessary to maintain an appropriate level of currency, as well as the priority of those efforts. During that review, the alternative of delaying the timing of the individual upgrades is considered based on: (1) maintaining an optimal balance between keeping the application current and risking failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) preventing employees from performing their daily tasks. This project makes ongoing upgrades and support for these applications possible and fortifies the Company's ability to keep the large number of applications in the technology landscape secure and operational through upgrades. Without these upgrades, the Company will fall further behind in maintaining vendor-supported software versions, increasing the cost and complexity of the upgrade in the future.											
DATES (phase end)												
Initiation	Project Plan & Scope Definition				Final Engineering, Planning & Design				Execution			
	In-Service/Go-Live				Closout							
FUNDING SUMMARY												
		<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030 +</u>	<u>Total</u>		
Cap+COR		-	-	-	-	-	-	-	-	-		
O&M		\$0.028	\$0.220	\$0.105	\$0.257	\$0.114	\$0.219	\$0.115	-	\$1.059		
Total Cost of Ownership		\$0.028	\$0.220	\$0.105	\$0.257	\$0.114	\$0.219	\$0.115	-	\$1.059		
		<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030 +</u>	<u>Total</u>		
Labor		\$0.022	\$0.218	\$0.098	\$0.210	\$0.106	\$0.172	\$0.107	-	\$0.935		
Outside Services		\$0.004	\$0.002	-	-	-	-	-	-	\$0.006		
Business Expense/Overheads		\$0.002	\$0.001	\$0.007	\$0.015	\$0.008	\$0.012	\$0.008	-	\$0.052		
Employee Benefits		-	-	-	-	-	-	-	-	-		
Materials		-	-	-	-	-	-	-	-	-		
Licenses, Permits & Fees		\$0.000	-	-	\$0.032	-	\$0.034	-	-	\$0.066		
Other		-	-	-	-	-	-	-	-	-		
Total Project Cost (Annual)		\$0.028	\$0.220	\$0.105	\$0.257	\$0.114	\$0.219	\$0.115	-	\$1.059		
VALUE & IMPACTS SUMMARY												
FINANCIAL IMPACTS												
		<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030 +</u>	<u>Total</u>		
O&M	Reduction	-	-	-	-	-	-	-	-	-		
	Initial	\$0.028	\$0.220	\$0.105	\$0.257	\$0.114	\$0.219	\$0.115	-	\$1.059		
	Incremental	-	-	-	-	-	-	-	-	-		
	Net	\$0.028	\$0.220	\$0.105	\$0.257	\$0.114	\$0.219	\$0.115	-	\$1.059		
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-		
	Initial	-	-	-	-	-	-	-	-	-		
	Incremental	-	-	-	-	-	-	-	-	-		
	Net	-	-	-	-	-	-	-	-	-		
Revenue	Reduction	-	-	-	-	-	-	-	-	-		
	Initial	-	-	-	-	-	-	-	-	-		
	Incremental	-	-	-	-	-	-	-	-	-		
	Net	-	-	-	-	-	-	-	-	-		
B/C Ratio (Overall)		-1.000										
Risk Tolerance												
Corporate Risk	Impact	Likelihood	Description									
OTHER VALUE												
Type	Description											
Technology Capability	Administrative & General (A&G) Support											
Risk Mitigation	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.											

Application Currency-IT/Digital Foundation-Application Plat Report Pulled: 11/1/2024										Item ID: 13366
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Maintain - Interval						Work Type	Project		
Alias	, Application Currency-IT/Digital Foundation-Application Platforms-Capital									
Description	The Application Platforms initiative will utilize both Capital and O&M funding to keep applications current for security and reliability. O&M is included in this project to complete expense activities associated with Capital upgrades.									
Portfolio	IT Services > Infrastructure > End User Computing > * > * > *									
Org	CX&T			Bus Unit	INFORMATION TECHNOLOGY			Dept	CX&T-IT-APPLICATION PLATFORMS & SERV	
WORK OBJECTIVES										
Problem Statement	The Company manages a large number of applications in the technology landscape that require regular version upgrades to maintain vendor-supported software versions. Without vendor supported versions, the Company loses the ability to receive version updates and upgrades to address defects, patch security vulnerabilities, protect against cyberthreats, protect data, and add new features. Failure to upgrade these applications can have a direct negative impact on key customer and business processes, increase support costs, increase unplanned outages, and increase cyber security vulnerabilities.									
Objectives	Maintaining the appropriate versions of applications through application currency upgrades in the Application Platforms adds value by: (1) enabling the Company to maintain vendor support; (2) remediating vendor security vulnerabilities and enhancing security protections; (3) addressing vendor defects that impair stability and functionality, leading to fewer incidents due to outdated software; and (4) addressing version interdependencies and compatibility between systems. This is essential to delivering safe, reliable, and affordable service to the Company's customers.									
Scope	The application upgrades in scope are regularly prioritized based on considerations that include application criticality; number of versions behind the current available version; security and operational risk; operational impacts of performing the upgrade; ability to defer; and cost. The scope of upgrading these applications encompasses: (1) upgrading the application software and respective database, (2) assessing any new functionality for value to the Company, (3) making necessary configuration changes, (5) testing the upgraded software, and (5) updating documentation related to the integration changes.									
Alternatives	Applications within the Application Platforms are routinely evaluated to determine if and what upgrade efforts are necessary to maintain an appropriate level of currency, as well as the priority of those efforts. During that review, the alternative of delaying the timing of the individual upgrades is considered based on: (1) maintaining an optimal balance between keeping the application current and risking failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) preventing employees from performing their daily tasks. This project makes ongoing upgrades and support for these applications possible and fortifies the Company's ability to keep the large number of applications in the technology landscape secure and operational through upgrades. Without these upgrades, the Company will fall further behind in maintaining vendor-supported software versions, increasing the cost and complexity of the upgrade in the future.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition			Final Engineering, Planning & Design				Execution		
	In-Service/Go-Live			Closeout						
FUNDING SUMMARY										
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Cap+COR	\$0.063	\$0.092	\$0.061	\$0.238	\$0.068	\$0.242	\$0.071	-	\$0.835	
O&M	\$0.010	\$0.141	\$0.020	\$0.210	\$0.052	\$0.211	\$0.054	-	\$0.698	
Total Cost of Ownership	\$0.073	\$0.234	\$0.082	\$0.447	\$0.119	\$0.453	\$0.125	-	\$1.533	
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Labor	\$0.073	\$0.233	\$0.050	\$0.323	\$0.085	\$0.327	\$0.089	-	\$1.181	
Outside Services	-	-	-	-	-	-	-	-	-	
Business Expense/Overheads	-	\$0.000	\$0.032	\$0.124	\$0.035	\$0.126	\$0.036	-	\$0.353	
Employee Benefits	-	-	-	-	-	-	-	-	-	
Materials	-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost (Annual)	\$0.073	\$0.234	\$0.082	\$0.447	\$0.119	\$0.453	\$0.125	-	\$1.533	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS										
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
O&M	-	-	-	-	-	-	-	-	-	
Reduction	-	-	-	-	-	-	-	-	-	
Initial	\$0.010	\$0.141	\$0.020	\$0.210	\$0.052	\$0.211	\$0.054	-	\$0.698	
Incremental	-	-	-	-	-	-	-	-	-	
Net	\$0.010	\$0.141	\$0.020	\$0.210	\$0.052	\$0.211	\$0.054	-	\$0.698	
Cap+COR	-	-	-	-	-	-	-	-	-	
Reduction	-	-	-	-	-	-	-	-	-	
Initial	\$0.063	\$0.092	\$0.061	\$0.238	\$0.068	\$0.242	\$0.071	-	\$0.835	
Incremental	-	-	-	-	-	-	-	-	-	
Net	\$0.063	\$0.092	\$0.061	\$0.238	\$0.068	\$0.242	\$0.071	-	\$0.835	
Revenue	-	-	-	-	-	-	-	-	-	
Reduction	-	-	-	-	-	-	-	-	-	
Initial	-	-	-	-	-	-	-	-	-	
Incremental	-	-	-	-	-	-	-	-	-	
Net	-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)			-1.000							
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									
Technology Capability	Administrative & General (A&G) Support									
Risk Mitigation	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.									

Application Currency-IT/Digital Foundation-Application Plat Report Pulled: 11/1/2024										Item ID: 13367
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Maintain - Interval						Work Type	Project		
Alias	, Application Currency-IT/Digital Foundation-Application Platforms-O&M									
Description	The Application Platforms initiative will utilize O&M funding to keep applications current for security and reliability.									
Portfolio	IT Services > Infrastructure > Network Services > * > * > *									
Org	CX&T			Bus Unit	INFORMATION TECHNOLOGY			Dept	CX&T-IT-APPLICATION PLATFORMS & SERV	
WORK OBJECTIVES										
Problem Statement	The Company manages a large number of applications in the technology landscape that require regular version upgrades to maintain vendor-supported software versions. Without vendor supported versions, the Company loses the ability to receive version updates and upgrades to address defects, patch security vulnerabilities, protect against cyberthreats, protect data, and add new features. Failure to upgrade these applications can have a direct negative impact on key customer and business processes, increase support costs, increase unplanned outages, and increase cyber security vulnerabilities.									
Objectives	Maintaining the appropriate versions of applications through application currency upgrades to the Application Platforms adds value by: (1) enabling the Company to maintain vendor support; (2) remediating vendor security vulnerabilities and enhancing security protections; (3) addressing vendor defects that impair stability and functionality, leading to fewer incidents due to outdated software; and (4) addressing version interdependencies and compatibility between systems. This is essential to delivering safe, reliable, and affordable service to the Company's customers. The application upgrades in scope are regularly prioritized based on considerations that include application criticality; number of versions behind the current available version; security and operational risk; operational impacts of performing the upgrade; ability to defer; and cost.									
Scope	The application upgrades in scope are regularly prioritized based on considerations that include application criticality; number of versions behind the current available version; security and operational risk; operational impacts of performing the upgrade; ability to defer; and cost. The scope of upgrading these applications encompasses: (1) upgrading the application software and respective database, (2) assessing any new functionality for value to the Company, (3) making necessary configuration changes, (5) testing the upgraded software, and (5) updating documentation related to the integration changes.									
Alternatives	Applications within the Application Platforms area are routinely evaluated to determine if and what upgrade efforts are necessary to maintain an appropriate level of currency, as well as the priority of those efforts. During that review, the alternative of delaying the timing of the individual upgrades is considered based on: (1) maintaining an optimal balance between keeping the application current and risking failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) preventing employees from performing their daily tasks. This project makes ongoing upgrades and support for these applications possible and fortifies the Company's ability to keep the large number of applications in the technology landscape secure and operational through upgrades. Without these upgrades, the Company will fall further behind in maintaining vendor-supported software versions, increasing the cost and complexity of the upgrade in the future.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution			
	In-Service/Go-Live			Closeout						
FUNDING SUMMARY										
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR		-	-	-	-	-	-	-	-	-
O&M		\$0.039	\$0.052	\$0.097	\$0.289	\$0.231	\$0.189	\$0.292	-	\$1.189
Total Cost of Ownership		\$0.039	\$0.052	\$0.097	\$0.289	\$0.231	\$0.189	\$0.292	-	\$1.189
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor		\$0.037	\$0.051	\$0.082	\$0.270	\$0.216	\$0.176	\$0.272	-	\$1.105
Outside Services		-	-	-	-	-	-	-	-	-
Business Expense/Overheads		\$0.003	\$0.001	\$0.015	\$0.019	\$0.015	\$0.012	\$0.019	-	\$0.084
Employee Benefits		-	-	-	-	-	-	-	-	-
Materials		-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees		-	-	-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)		\$0.039	\$0.052	\$0.097	\$0.289	\$0.231	\$0.189	\$0.292	-	\$1.189
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS										
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.039	\$0.052	\$0.097	\$0.289	\$0.231	\$0.189	\$0.292	-	\$1.189
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.039	\$0.052	\$0.097	\$0.289	\$0.231	\$0.189	\$0.292	-	\$1.189
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000								
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									
Technology Capability	Administrative & General (A&G) Support									
Intangibles	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.									

Application Currency-IT/Digital Foundation-Infrastructure F Report Pulled: 11/1/2024										Item ID: 13369
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Maintain - Interval					Work Type	Project			
Alias	, Application Currency-IT/Digital Foundation-Infrastructure Platforms-O&M									
Description	The Infrastructure Platforms initiative will utilize O&M funding to keep applications current for security and reliability.									
Portfolio	IT Services > Infrastructure > * > * > * > *									
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY			Dept	CX&T-IT-INFRASTRUCTURE PLATFORMS &			
WORK OBJECTIVES										
Problem Statement	The Company manages a large number of applications in the technology landscape that require regular version upgrades to maintain vendor-supported software versions. Without vendor supported versions, the Company loses the ability to receive version updates and upgrades to address defects, patch security vulnerabilities, protect against cyberthreats, protect data, and add new features. Failure to upgrade these applications can have a direct negative impact on key customer and business processes, increase support costs, increase unplanned outages, and increase cyber security vulnerabilities.									
Objectives	Maintaining the appropriate versions of applications through application currency upgrades in the Infrastructure Platforms adds value by: (1) enabling the Company to maintain vendor support; (2) remediating vendor security vulnerabilities and enhancing security protections; (3) addressing vendor defects that impair stability and functionality, leading to fewer incidents due to outdated software; and (4) addressing version interdependencies and compatibility between systems. This is essential to delivering safe, reliable, and affordable service to the Company's customers. The application upgrades in scope are regularly prioritized based on considerations that include application criticality; number of versions behind the current available version; security and operational risk; operational impacts of performing the upgrade; ability to defer; and cost.									
Scope	The application upgrades in scope are regularly prioritized based on considerations that include application criticality; number of versions behind the current available version; security and operational risk; operational impacts of performing the upgrade; ability to defer; and cost. The scope of upgrading these applications encompasses: (1) upgrading the application software and respective database, (2) assessing any new functionality for value to the Company, (3) making necessary configuration changes, (5) testing the upgraded software, and (5) updating documentation related to the integration changes.									
Alternatives	Applications within the Infrastructure Platforms are routinely evaluated to determine if and what upgrade efforts are necessary to maintain an appropriate level of currency, as well as the priority of those efforts. During that review, the alternative of delaying the timing of the individual upgrades is considered based on: (1) maintaining an optimal balance between keeping the application current and risking failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) preventing employees from performing their daily tasks. This project makes ongoing upgrades and support for these applications possible and fortifies the Company's ability to keep the large number of applications in the technology landscape secure and operational through upgrades. Without these upgrades, the Company will fall further behind in maintaining vendor-supported software versions, increasing the cost and complexity of the upgrade in the future.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution			
	In-Service/Go-Live			Closeout						
FUNDING SUMMARY										
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Cap+COR	-	-	-	-	-	-	-	-	-	
O&M	\$0.007	\$0.153	\$0.021	\$0.039	\$0.039	\$0.039	\$0.039	-	\$0.338	
Total Cost of Ownership	\$0.007	\$0.153	\$0.021	\$0.039	\$0.039	\$0.039	\$0.039	-	\$0.338	
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Labor	\$0.000	\$0.143	\$0.018	\$0.037	\$0.037	\$0.037	\$0.037	-	\$0.307	
Outside Services	-	-	-	-	-	-	-	-	-	
Business Expense/Overheads	-	\$0.010	\$0.003	\$0.003	\$0.003	\$0.003	\$0.003	-	\$0.023	
Employee Benefits	-	-	-	-	-	-	-	-	-	
Materials	-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees	\$0.007	-	-	-	-	-	-	-	\$0.007	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost (Annual)	\$0.007	\$0.153	\$0.021	\$0.039	\$0.039	\$0.039	\$0.039	-	\$0.338	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS										
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
O&M										
Reduction	-	-	-	-	-	-	-	-	-	
Initial	\$0.007	\$0.153	\$0.021	\$0.039	\$0.039	\$0.039	\$0.039	-	\$0.338	
Incremental	-	-	-	-	-	-	-	-	-	
Net	\$0.007	\$0.153	\$0.021	\$0.039	\$0.039	\$0.039	\$0.039	-	\$0.338	
Cap+COR										
Reduction	-	-	-	-	-	-	-	-	-	
Initial	-	-	-	-	-	-	-	-	-	
Incremental	-	-	-	-	-	-	-	-	-	
Net	-	-	-	-	-	-	-	-	-	
Revenue										
Reduction	-	-	-	-	-	-	-	-	-	
Initial	-	-	-	-	-	-	-	-	-	
Incremental	-	-	-	-	-	-	-	-	-	
Net	-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)			-1.000							
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									
Technology Capability	Administrative & General (A&G) Support									
Intangibles	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.									

Application Currency-Operational Technology-Capital				Report Pulled: 11/1/2024				Item ID: 13370											
EXECUTIVE SUMMARY																			
BASIC INFORMATION																			
Work Category		Maintain - Interval				Work Type				Project									
Alias		, Application Currency-Operational Technology-Capital																	
Description		The Operational Technology initiative will utilize both Capital and O&M funding to keep applications current for security and reliability. O&M is included in this project to complete expense activities associated with Capital upgrades.																	
Portfolio		IT Services > Applications > Foundational Enterprise Applications > * > * > *																	
Org		CX&T		Bus Unit		INFORMATION TECHNOLOGY		Dept		CX&T-IT-APPLICATION PLATFORMS & SERV									
WORK OBJECTIVES																			
Problem Statement		The Company manages a large number of applications in the technology landscape that require regular version upgrades to maintain vendor-supported software versions. Without vendor supported versions, the Company loses the ability to receive version updates and upgrades to address defects, patch security vulnerabilities, protect against cyberthreats, protect data, and add new features. Failure to upgrade these applications can have a direct negative impact on key customer and business processes, increase support costs, increase unplanned outages, and increase cyber security vulnerabilities.																	
Objectives		Maintaining the appropriate versions of applications through application currency upgrades in the Operational Technology adds value by: (1) enabling the Company to maintain vendor support; (2) remediating vendor security vulnerabilities and enhancing security protections; (3) addressing vendor defects that impair stability and functionality, leading to fewer incidents due to outdated software; and (4) addressing version interdependencies and compatibility between systems. This is essential to delivering safe, reliable, and affordable service to the Company's customers. The application upgrades in scope are regularly prioritized based on considerations that include application criticality; number of versions behind the current available version; security and operational risk; operational impacts of performing the upgrade; ability to defer; and cost.																	
Scope		The application upgrades in scope are regularly prioritized based on considerations that include application criticality; number of versions behind the current available version; security and operational risk; operational impacts of performing the upgrade; and cost. The scope of upgrading these applications encompasses: (1) upgrading the application software and respective database, (2) assessing any new functionality for value to the Company, (3) making necessary configuration changes, (5) testing the upgraded software, and (5) updating documentation related to the integration changes.																	
Alternatives		Applications within the Operational Technology are routinely evaluated to determine if and what upgrade efforts are necessary to maintain an appropriate level of currency, as well as the priority of those efforts. During that review, the alternative of delaying the timing of the individual upgrades is considered based on: (1) maintaining an optimal balance between keeping the application current and risking failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) preventing employees from performing their daily tasks. This project makes ongoing upgrades and support for these applications possible and fortifies the Company's ability to keep the large number of applications in the technology landscape secure and operational through upgrades. Without these upgrades, the Company will fall further behind in maintaining vendor-supported software versions, increasing the cost and complexity of the upgrade in the future.																	
DATES (phase end)																			
Initiation		Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution											
		In-Service/Go-Live			Closeout														
FUNDING SUMMARY																			
		2023		2024		2025		2026		2027		2028		2029		2030 +		Total	
Cap+COR		\$0.054		\$0.216		-		\$0.225		-		\$0.466		-		-		\$0.961	
O&M		\$0.069		\$0.073		-		\$0.055		-		\$0.107		-		-		\$0.305	
Total Cost of Ownership		\$0.124		\$0.289		-		\$0.281		-		\$0.573		-		-		\$1.266	
		2023		2024		2025		2026		2027		2028		2029		2030 +		Total	
Labor		-		\$0.235		-		\$0.173		-		\$0.350		-		-		\$0.758	
Outside Services		-		\$0.000		-		-		-		-		-		-		\$0.000	
Business Expense/Overheads		-		\$0.002		-		\$0.108		-		\$0.223		-		-		\$0.332	
Employee Benefits		-		-		-		-		-		-		-		-		-	
Materials		\$0.124		\$0.052		-		-		-		-		-		-		\$0.175	
Licenses, Permits & Fees		-		-		-		-		-		-		-		-		-	
Other		-		-		-		-		-		-		-		-		-	
Total Project Cost (Annual)		\$0.124		\$0.289		-		\$0.281		-		\$0.573		-		-		\$1.266	
VALUE & IMPACTS SUMMARY																			
FINANCIAL IMPACTS																			
		2023		2024		2025		2026		2027		2028		2029		2030 +		Total	
O&M		-		-		-		-		-		-		-		-		-	
Reduction		-		-		-		-		-		-		-		-		-	
Initial		\$0.069		\$0.073		-		\$0.055		-		\$0.107		-		-		\$0.305	
Incremental		-		-		-		-		-		-		-		-		-	
Net		\$0.069		\$0.073		-		\$0.055		-		\$0.107		-		-		\$0.305	
Cap+COR		-		-		-		-		-		-		-		-		-	
Reduction		-		-		-		-		-		-		-		-		-	
Initial		\$0.054		\$0.216		-		\$0.225		-		\$0.466		-		-		\$0.961	
Incremental		-		-		-		-		-		-		-		-		-	
Net		\$0.054		\$0.216		-		\$0.225		-		\$0.466		-		-		\$0.961	
Revenue		-		-		-		-		-		-		-		-		-	
Reduction		-		-		-		-		-		-		-		-		-	
Initial		-		-		-		-		-		-		-		-		-	
Incremental		-		-		-		-		-		-		-		-		-	
Net		-		-		-		-		-		-		-		-		-	
B/C Ratio (Overall)								-1.000											
Risk Tolerance																			
Corporate Risk		Impact		Likelihood		Description													
OTHER VALUE																			
Type		Description																	
Technology Capability		Electric T&D, Gas T&D, Generation																	
Intangibles		Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.																	

Application Currency-Operational Technology-O&M		Report Pulled: 11/1/2024		Item ID: 11336					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Maintain - Interval			Work Type	Project				
Alias	Operational Technology Software Refresh Program, Application Currency and Enhancements - Operational Technology - O&M, Application Currency and Enhancements - Operational Technology - Capital, Application Currency - Operational Technology - Capital, Application Currency - Operational Technology - O&M, Application Currency-Operational Technology-								
Description	The Operational Technology initiative will utilize O&M funding to keep applications current for security and reliability.								
Portfolio	IT Services > Applications > Foundational Enterprise Applications > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-TRANS, OPS SUPPORT AND ENG				
WORK OBJECTIVES									
Problem Statement	The Company manages a large number of applications in the technology landscape that require regular version upgrades to maintain vendor-supported software versions. Without vendor supported versions, the Company loses the ability to receive version updates and upgrades to address defects, patch security vulnerabilities, protect against cyberthreats, protect data, and add new features. Failure to upgrade these applications can have a direct negative impact on key customer and business processes, increase support costs, increase unplanned outages, and increase cyber security vulnerabilities.								
Objectives	Maintaining the appropriate versions of applications through application currency upgrades in the Operational Technology adds value by: (1) enabling the Company to maintain vendor support; (2) remediating vendor security vulnerabilities and enhancing security protections; (3) addressing vendor defects that impair stability and functionality, leading to fewer incidents due to outdated software; and (4) addressing version interdependencies and compatibility between systems. This is essential to delivering safe, reliable, and affordable service to the Company's customers.								
Scope	The application upgrades in scope are regularly prioritized based on considerations that include application criticality, number of versions behind the current available version; security and operational risk; operational impacts of performing the upgrade; ability to defer; and cost. The scope of upgrading these applications encompasses: (1) upgrading the application software, (2) assessing any new functionality for value to the Company, (3) making necessary configuration changes, (5) testing the upgraded software, and (5) updating documentation related to the integration changes.								
Alternatives	Applications within the Operational Technology are routinely evaluated to determine if and what upgrade efforts are necessary to maintain an appropriate level of currency, as well as the priority of those efforts. During that review, the alternative of delaying the timing of the individual upgrades is considered based on: (1) maintaining an optimal balance between keeping the application current and risking failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) preventing employees from performing their daily tasks. This project makes ongoing upgrades and support for these applications possible and fortifies the Company's ability to keep the large number of applications in the technology landscape secure and operational through upgrades. Without these upgrades, the Company will fall further behind in maintaining vendor-supported software versions, increasing the cost and complexity of the upgrade in the future.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
	In-Service/Go-Live		Closeout						
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	-	-	-	-	-	-	-	-	-
O&M	\$0.006	-	-	-	-	-	-	-	\$0.006
Total Cost of Ownership	\$0.006	-	-	-	-	-	-	-	\$0.006
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	\$0.005	-	-	-	-	-	-	-	\$0.005
Outside Services	\$0.000	-	-	-	-	-	-	-	\$0.000
Business Expense/Overheads	\$0.000	-	-	-	-	-	-	-	\$0.000
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)	\$0.006	-	-	-	-	-	-	-	\$0.006
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.006	-	-	-	-	-	-	-	\$0.006
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.006	-	-	-	-	-	-	-	\$0.006
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000							
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Types	Description								
Technology Capability	Electric T&D, Gas T&D, Generation								
Intangibles	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.								

Application Currency-Operational Technology-O&M		Report Pulled: 11/1/2024		Item ID: 13371					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Maintain - Interval			Work Type	Project				
Alias	, Application Currency-Operational Technology-O&M								
Description	The Operational Technology initiative will utilize O&M funding to keep applications current for security and reliability.								
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-APPLICATION PLATFORMS & SER				
WORK OBJECTIVES									
Problem Statement	The Company manages a large number of applications in the technology landscape that require regular version upgrades to maintain vendor-supported software versions. Without vendor supported versions, the Company loses the ability to receive version updates and upgrades to address defects, patch security vulnerabilities, protect against cyberthreats, protect data, and add new features. Failure to upgrade these applications can have a direct negative impact on key customer and business processes, increase support costs, increase unplanned outages, and increase cyber security vulnerabilities.								
Objectives	Maintaining the appropriate versions of applications through application currency upgrades in the Operational Technology adds value by: (1) enabling the Company to maintain vendor support; (2) remediating vendor security vulnerabilities and enhancing security protections; (3) addressing vendor defects that impair stability and functionality, leading to fewer incidents due to outdated software; and (4) addressing version interdependencies and compatibility between systems. This is essential to delivering safe, reliable, and affordable service to the Company's customers.								
Scope	The application upgrades in scope are regularly prioritized based on considerations that include application criticality; number of versions behind the current available version; security and operational risk; operational impacts of performing the upgrade; ability to defer; and cost. The scope of upgrading these applications encompasses: (1) upgrading the application software and respective database, (2) assessing any new functionality for value to the Company, (3) making necessary configuration changes, (5) testing the upgraded software, and (5) updating documentation related to the integration changes.								
Alternatives	Applications within the Operational Technology are routinely evaluated to determine if and what upgrade efforts are necessary to maintain an appropriate level of currency, as well as the priority of those efforts. During that review, the alternative of delaying the timing of the individual upgrades is considered based on: (1) maintaining an optimal balance between keeping the application current and risking failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) preventing employees from performing their daily tasks. This project makes ongoing upgrades and support for these applications possible and fortifies the Company's ability to keep the large number of applications in the technology landscape secure and operational through upgrades. Without these upgrades, the Company will fall further behind in maintaining vendor-supported software versions, increasing the cost and complexity of the upgrade in the future.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
	In-Service/Go-Live		Closeout						
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	-	-	-	-	-	-	-	-	-
O&M	\$0.034	\$0.179	\$0.103	\$0.326	\$0.316	\$0.389	\$0.316	-	\$1.663
Total Cost of Ownership	\$0.034	\$0.179	\$0.103	\$0.326	\$0.316	\$0.389	\$0.316	-	\$1.663
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	\$0.002	\$0.178	\$0.087	\$0.305	\$0.295	\$0.364	\$0.295	-	\$1.525
Outside Services	\$0.032	\$0.000	-	-	-	-	-	-	\$0.032
Business Expense/Overheads	\$0.001	\$0.001	\$0.016	\$0.021	\$0.021	\$0.025	\$0.021	-	\$0.106
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)	\$0.034	\$0.179	\$0.103	\$0.326	\$0.316	\$0.389	\$0.316	-	\$1.663
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.034	\$0.179	\$0.103	\$0.326	\$0.316	\$0.389	\$0.316	-	\$1.663
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.034	\$0.179	\$0.103	\$0.326	\$0.316	\$0.389	\$0.316	-	\$1.663
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000							
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								

App Curr-Operations-O&M

App Curr-Security-Cap

Application Currency-Security-O&M		Report Pulled: 11/1/2024		Item ID: 11337					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Maintain - Interval			Work Type	Project				
Alias	, Security Application Currency, Application Currency and Enhancements - Security - Capital, Application Currency – Security – Capital, Application Currency – Security – O&M, Application Currency-Security-O&M								
Description	This project will utilize both Capital and O&M funding to keep applications current for security and reliability. O&M is included in this project to complete expense activities associated with Capital upgrade								
Portfolio	Corporate Services > Security Services > Security > * > * > *								
Org	CX&T	Bus Unit	SECURITY	Dept	CX&T-SECURITY-SECURITY PROGRAM MG				
WORK OBJECTIVES									
Problem Statement	The Company manages a large number of applications in the technology landscape that require regular version upgrades to maintain vendor-supported software versions. Without vendor supported versions, the Company loses the ability to receive version updates and upgrades to address defects, patch security vulnerabilities, protect against cyberthreats, protect data, and add new features. Failure to upgrade these applications can have a direct negative impact on key customer and business processes, increase support costs, increase unplanned outages, and increase cyber security vulnerabilities.								
Objectives	Maintaining the appropriate versions of applications through application currency upgrades to the Security digital assets adds value by: (1) enabling the Company to maintain vendor support; (2) remediating vendor security vulnerabilities and enhancing security protections; (3) addressing vendor defects that impair stability and functionality, leading to fewer incidents due to outdated software; and (4) addressing version interdependencies and compatibility between systems. This is essential to delivering safe, reliable, and affordable service to the Company's customers.								
Scope	The application upgrades in scope are regularly prioritized based on considerations that include application criticality; number of versions behind the current available version; security and operational risk; operational impacts of performing the upgrade; ability to defer; and cost. The scope of upgrading these applications encompasses: (1) upgrading the application software, (2) assessing any new functionality for value to the Company, (3) making necessary configuration changes, (5) testing the upgraded software, and (5) updating documentation related to the integration changes.								
Alternatives	Applications within Security are routinely evaluated to determine if and what upgrade efforts are necessary to maintain an appropriate level of currency, as well as the priority of those efforts. During that review, the alternative of delaying the timing of the individual upgrades is considered based on: (1) maintaining an optimal balance between keeping the application current and risking failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) preventing employees from performing their daily tasks. This project makes ongoing upgrades and support for these applications possible and fortifies the Company's ability to keep the large number of applications in the technology landscape secure and operational through upgrades. Without these upgrades, the Company will fall further behind in maintaining vendor-supported software versions, increasing the cost and complexity of the upgrade in the future.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
	In-Service/Go-Live		Closeout						
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	-	-	-	-	-	-	-	-	-
O&M	\$0.029	\$0.016	\$0.156	\$0.360	\$0.360	\$0.360	\$0.360	-	\$1.642
Total Cost of Ownership	\$0.029	\$0.016	\$0.156	\$0.360	\$0.360	\$0.360	\$0.360	-	\$1.642
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	\$0.029	\$0.016	\$0.132	\$0.337	\$0.337	\$0.337	\$0.337	-	\$1.524
Outside Services	-	-	-	-	-	-	-	-	-
Business Expense/Overheads	\$0.000	\$0.000	\$0.024	\$0.024	\$0.024	\$0.024	\$0.024	-	\$0.118
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)	\$0.029	\$0.016	\$0.156	\$0.360	\$0.360	\$0.360	\$0.360	-	\$1.642
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.029	\$0.016	\$0.156	\$0.360	\$0.360	\$0.360	\$0.360	-	\$1.642
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.029	\$0.016	\$0.156	\$0.360	\$0.360	\$0.360	\$0.360	-	\$1.642
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000							
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Technology Capability	Administrative & General (A&G) Support								
Intangibles	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.								

Application Currency-TEOS-O&M		Report Pulled: 11/1/2024		Item ID: 8775					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Maintain - Interval			Work Type	Project				
Alias	, Enhancements - TEOS - O&M, Application Currency and Enhancements - TEOS -O&M, Application Currency - TEOS - O&M, Application Currency-TEOS-O&M								
Description	The TEOS initiative will utilize O&M funding to keep applications current for security and reliability.								
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-TRANS, OPS SUPPORT AND ENG				
WORK OBJECTIVES									
Problem Statement	The Company manages a large number of applications in the technology landscape that require regular version upgrades to maintain vendor-supported software versions. Without vendor supported versions, the Company loses the ability to receive version updates and upgrades to address defects, patch security vulnerabilities, protect against cyberthreats, protect data, and add new features. Failure to upgrade these applications can have a direct negative impact on key customer and business processes, increase support costs, increase unplanned outages, and increase cyber security vulnerabilities.								
Objectives	Maintaining the appropriate versions of applications through application currency upgrades in the TEOS adds value by: (1) enabling the Company to maintain vendor support; (2) remediating vendor security vulnerabilities and enhancing security protections; (3) addressing vendor defects that impair stability and functionality, leading to fewer incidents due to outdated software; and (4) addressing version interdependencies and compatibility between systems. This is essential to delivering safe, reliable, and affordable service to the Company's customers.								
Scope	The application upgrades in scope are regularly prioritized based on considerations that include application criticality; number of versions behind the current available version; security and operational risk; operational impacts of performing the upgrade; ability to defer; and cost. The scope of upgrading these applications encompasses: (1) upgrading the application software, (2) assessing any new functionality for value to the Company, (3) making necessary configuration changes, (5) testing the upgraded software, and (5) updating documentation related to the integration changes.								
Alternatives	Applications within the TEOS are routinely evaluated to determine if and what upgrade efforts are necessary to maintain an appropriate level of currency, as well as the priority of those efforts. During that review, the alternative of delaying the timing of the individual upgrades is considered based on: (1) maintaining an optimal balance between keeping the application current and risking failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) preventing employees from performing their daily tasks. This project makes ongoing upgrades and support for these applications possible and fortifies the Company's ability to keep the large number of applications in the technology landscape secure and operational through upgrades. Without these upgrades, the Company will fall further behind in maintaining vendor-supported software versions, increasing the cost and complexity of the upgrade in the future.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
	In-Service/Go-Live		Closeout						
FUNDING SUMMARY									
	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030 +</u>	<u>Total</u>
Cap+COR	-	-	-	-	-	-	-	-	-
O&M	\$0.078	\$0.249	-	-	-	-	-	-	\$0.327
Total Cost of Ownership	\$0.078	\$0.249	-	-	-	-	-	-	\$0.327
	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030 +</u>	<u>Total</u>
Labor	\$0.025	\$0.224	-	-	-	-	-	-	\$0.249
Outside Services	\$0.051	\$0.025	-	-	-	-	-	-	\$0.076
Business Expense/Overheads	\$0.002	\$0.000	-	-	-	-	-	-	\$0.002
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)	\$0.078	\$0.249	-	-	-	-	-	-	\$0.327
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030 +</u>	<u>Total</u>
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.078	\$0.249	-	-	-	-	-	-	\$0.327
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.078	\$0.249	-	-	-	-	-	-	\$0.327
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-1.000						
Risk Tolerance									
<u>Corporate Risk</u>	<u>Impact</u>	<u>Likelihood</u>	<u>Description</u>						
OTHER VALUE									
<u>Type</u>	<u>Description</u>								
Technology Capability	Electric T&D, Gas T&D, Generation								
Intangibles	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.								

ARP-Collaboration		Report Pulled: 11/1/2024		Item ID: 8213					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Maintain - Interval			Work Type	Project				
Alias	ARP - Collaboration Asset Refresh,ARP — Collaboration, ARP-Collaboration								
Description	This project will replace the Company's obsolete or out-of date audio, visual, telephony and other communication collaborative tools and equipment.								
Portfolio	IT Services > Infrastructure > Network Services > Communication Network > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-INFRASTRUCTURE PLATFORMS &				
WORK OBJECTIVES									
Problem Statement	When Collaboration Assets that are used to support customer interactions and business operations are obsolete or out-of-date, they can be more difficult to keep current with Security updates. The Company also runs the risk of failure of these assets if it does not adhere to a regular refresh cycle.								
Objectives	This project creates value by: (1) ensuring that the Company's audio, visual, telephony, and other communications systems are stable and reliable; and (2) migrate to new collaboration assets.								
Scope	The project scope consists of: (1) annually replacing aging collaboration assets; and (2) installing new collaboration assets to account for evolving business requirements.								
Alternatives	The following alternatives were considered: (1) refresh visual assets and a portion of the audio assets; (2) refresh a portion of the audio assets only; and (3) refresh visual assets only. These alternatives were not chosen due to the risk inherent with a partial replacement of assets, which includes: (1) a reduced supply of equivalent replacement Avaya parts that are no longer being produced; and (2) an erosion of the knowledge technicians possess on discontinued systems.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
	In-Service/Go-Live		Closeout						
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	\$1.840	\$1.110	\$1.186	\$1.755	\$1.535	\$0.895	\$1.303	-	\$9.623
O&M	\$0.146	\$0.208	\$0.226	\$0.222	\$0.236	\$0.214	\$0.228	-	\$1.481
Total Cost of Ownership	\$1.986	\$1.318	\$1.412	\$1.977	\$1.771	\$1.109	\$1.530	-	\$11.104
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	\$0.075	\$0.050	\$0.259	\$0.189	\$0.181	\$0.168	\$0.168	-	\$1.090
Outside Services	\$0.199	\$0.285	\$0.185	\$0.267	\$0.226	\$0.223	\$0.331	-	\$1.716
Business Expense/Overheads	\$0.019	\$0.188	\$0.027	\$0.031	\$0.030	\$0.029	\$0.029	-	\$0.352
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	\$1.689	\$0.796	\$0.940	\$1.491	\$1.335	\$0.689	\$1.003	-	\$7.943
Licenses, Permits & Fees	\$0.003	-	-	-	-	-	-	-	\$0.003
Other	-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)	\$1.986	\$1.318	\$1.412	\$1.977	\$1.771	\$1.109	\$1.530	-	\$11.104
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.146	\$0.208	\$0.226	\$0.222	\$0.236	\$0.214	\$0.228	-	\$1.481
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.146	\$0.208	\$0.226	\$0.222	\$0.236	\$0.214	\$0.228	-	\$1.481
Cap+COR	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$1.840	\$1.110	\$1.186	\$1.755	\$1.535	\$0.895	\$1.303	-	\$9.623
Incremental	-	-	-	-	-	-	-	-	-
Net	\$1.840	\$1.110	\$1.186	\$1.755	\$1.535	\$0.895	\$1.303	-	\$9.623
Revenue	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000							
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Technology Capability	Administrative & General (A&G) Support								
Risk Mitigation	The Company' research demonstrates that industry standards on refreshing hardware are generally three to five years. Using these recommendations allows the Company to: (1) Avoid increasing costs as the result of hardware failures; 2) avert customer frustration and employee downtime, (3) reduce security risks by ensuring that devices are updated and patched to prevent vulnerabilities, (4) continue operating system support as older versions are retired by the manufacturer, and (5) ensure employees have the required software to perform their work.								

ARP-Core Network Upgrade		Report Pulled: 11/1/2024		Item ID: 6686					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Maintain - Interval			Work Type	Project				
Alias	Core Network Refresh, ARP - Core Network Upgrade, ARP-Core Network Upgrade, ARP-Core Network								
Description	This project will refresh the Data Center network equipment.								
Portfolio	IT Services > Infrastructure > Network Services > Data Network > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-INFRASTRUCTURE PLATFORMS &				
WORK OBJECTIVES									
Problem Statement	When network assets that are used to support customer interactions and ensure the stability of mission critical business operations are obsolete or out-of-date, they are more expensive to support and can be more difficult to keep current with security updates. The Company also runs the risk of failure of these assets if it does not adhere to a regular refresh cycle.								
Objectives	This project will create value for the Company and its customers by: (1) increasing network reliability; (2) adding new functionality; (3) improving network performance; and (4) standardizing network infrastructure across Data Centers.								
Scope	The project scope includes the replacement of all core network devices with next generation devices.								
Alternatives	The alternative considered was to continue running in the current state or delay the replacement of network devices and accept the risk of further business and customer impact when more equipment failures occur.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
	In-Service/Go-Live 12/31/2021		Closeout						
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	\$0.026	-	-	\$0.540	\$0.541	\$2.040	\$1.278	-	\$4.425
O&M	-	-	-	\$0.034	\$0.035	\$0.118	\$0.032	-	\$0.219
Total Cost of Ownership	\$0.026	-	-	\$0.574	\$0.576	\$2.158	\$1.310	-	\$4.644
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	\$0.019	-	-	\$0.030	\$0.030	\$0.135	\$0.060	-	\$0.274
Outside Services	-	-	-	\$0.022	\$0.022	\$0.085	\$0.070	-	\$0.199
Business Expense/Overheads	\$0.007	-	-	\$0.011	\$0.012	\$0.130	\$0.051	-	\$0.212
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	\$0.510	\$0.511	\$1.808	\$1.129	-	\$3.959
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)	\$0.026	-	-	\$0.574	\$0.576	\$2.158	\$1.310	-	\$4.644
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	\$0.034	\$0.035	\$0.118	\$0.032	-	\$0.219
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	\$0.034	\$0.035	\$0.118	\$0.032	-	\$0.219
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.026	-	-	\$0.540	\$0.541	\$2.040	\$1.278	-	\$4.425
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.026	-	-	\$0.540	\$0.541	\$2.040	\$1.278	-	\$4.425
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000							
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Technology Capability	Administrative & General (A&G) Support								
Risk Mitigation	The Company's research demonstrates that industry standards on refreshing hardware are generally three to five years. Using these recommendations allows the Company to: (1) Avoid increasing costs as the result of hardware failures; 2) avert customer frustrations and employee downtime, (3) reduce security risks by ensuring that devices are updated and patched to prevent vulnerabilities, (4) continue operating system support as older versions are retired by the manufacturer, and (5) ensure employees have the required software to perform their work.								

ARP-Cyber Security		Report Pulled: 11/1/2024		Item ID: 8240						
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Maintain - Interval			Work Type	Project					
Alias	ARP-Cyber Security,Asset Refresh Program - Cyber Security, ARP-Cyber Security									
Description	This project will replace cyber security infrastructure to support increasing system and application demands and to prevent system failures and service interruptions.									
Portfolio	Corporate Services > Security Services > Cyber Security & Shared Services > * > * > *									
Org	CX&T	Bus Unit	SECURITY	Dept	CX&T-SECURITY-SECURITY PROGRAM MC					
WORK OBJECTIVES										
Problem Statement	When enterprise software or cyber security infrastructure used to support and enhance customer interactions is obsolete, these assets are more expensive to support and can be more difficult to keep current with security updates.									
Objectives	This project will create value by maintaining the currency of the cyber security infrastructure for core enterprise software. These are used to ensure the stability of technology for business operations.									
Scope	The scope of this project consists of: (1) annually replacing a subset of cyber security firewalls and servers in keeping with a 3-5 year hardware lifecycle; and (2) performing application upgrades.									
Alternatives	As part of the review process, the alternatives considered were to: (1) upgrade or replace only those assets identified in the plan; (2) upgrade or replace a portion of the assets identified in the plan. Option 1 was not chosen based on continued refresh cycle for cyber security assets to avoid security risks, system vulnerabilities, and out-of-warranty repair costs. Option 2 was not chosen due to the security risk inherent with not replacing assets as per standard refresh cycles increased system vulnerabilities, and out-of-warranty repair costs.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution					
	In-Service/Go-Live		Closeout							
FUNDING SUMMARY										
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Cap+COR	-	\$0.468	\$0.451	\$0.454	\$0.380	\$0.380	\$0.380	-	\$2.512	
O&M	-	\$0.025	\$0.025	\$0.025	\$0.025	\$0.025	\$0.025	-	\$0.150	
Total Cost of Ownership	-	\$0.493	\$0.476	\$0.479	\$0.405	\$0.405	\$0.405	-	\$2.662	
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Labor	-	\$0.047	\$0.075	\$0.075	\$0.075	\$0.075	\$0.075	-	\$0.422	
Outside Services	-	\$0.002	-	-	-	-	-	-	\$0.002	
Business Expense/Overheads	-	\$0.004	\$0.030	\$0.030	\$0.030	\$0.030	\$0.030	-	\$0.154	
Employee Benefits	-	-	-	-	-	-	-	-	-	
Materials	-	\$0.440	\$0.371	\$0.374	\$0.300	\$0.300	\$0.300	-	\$2.084	
Licenses, Permits & Fees	-	\$0.000	-	-	-	-	-	-	\$0.000	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost (Annual)	-	\$0.493	\$0.476	\$0.479	\$0.405	\$0.405	\$0.405	-	\$2.662	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	\$0.025	\$0.025	\$0.025	\$0.025	\$0.025	\$0.025	-	\$0.150
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	\$0.025	\$0.025	\$0.025	\$0.025	\$0.025	\$0.025	-	\$0.150
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	\$0.468	\$0.451	\$0.454	\$0.380	\$0.380	\$0.380	-	\$2.512
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	\$0.468	\$0.451	\$0.454	\$0.380	\$0.380	\$0.380	-	\$2.512
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000								
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
System Failure (SAP & Other)	Medium	Medium	The risks associated with not completing the program are impacts on business operations that are in service of the Company's customers. The probability of these risk occurring increases as the age of the asset increases. Unless linked to a specific corporate or IT risk, you would skip this section, and go to Other Impacts if risk mitigation							
OTHER VALUE										
Type	Description									
Technology Capability	Administrative & General (A&G) Support									
Technology Capability	Compliance & Risk Management									
Risk Mitigation	The Company' research demonstrates that industry standards on refreshing hardware are generally three to five years. Using these recommendations allows the Company to: 1) Avoid increasing costs as the result of hardware failures; 2) avert customer frustration and employee downtime; 3) reduce security risks by ensuring that devices are updated and patched to prevent vulnerabilities; 4) continue operating system support as older versions are retired by the manufacturer; and 5) ensure employees have the required software to perform their work.									

ARP-Field Device Asset Management (FDAM)				Report Pulled: 11/1/2024				Item ID: 8241											
EXECUTIVE SUMMARY																			
BASIC INFORMATION																			
Work Category		Maintain - Interval				Work Type		Project											
Alias		ARP – Field Device Asset Management (FDAM),ARP – Field Device Asset Management (FDAM), ARP-Field Device Asset Management (FDAM)																	
Description		This project will replace field devices according to a four-year refresh cycle that is based on industry standards, hardware failures, security patches, and software compatibility.																	
Portfolio		IT Services > Infrastructure > End User Computing > * > * > *																	
Org		CX&T		Bus Unit		INFORMATION TECHNOLOGY		Dept CX&T-IT-INFRASTRUCTURE PLATFORMS &											
WORK OBJECTIVES																			
Problem Statement		When Field Device Assets used to support customer interactions and business operations are obsolete or out-of-date, they are more expensive to support and keep current with Security updates as equipment becomes obsolete. The Company also runs the risk of failure of these assets if it does not adhere to a regular four-year refresh cycle.																	
Objectives		This project creates value for the Company by: (1) improving stability and availability of business-critical applications by proactively replacing field devices prior to increasing hardware failures; and (2) allowing field workers to complete their job tasks.																	
Scope		The project scope consists of replacing field device assets according to the four-year refresh cycle.																	
Alternatives		The alternatives considered were to: (1) extend the replacement cycle from four years to five years for field devices; and (2) use outdated equipment. The Company did not select these options because: (1) there would be an increased risk of hardware failure and equipment outages that could impact the capacity of business partners to complete job tasks; (2) it could cause applications to run poorly or stop functioning; (3) it would increase the assets that need refreshing in future years based on the number of devices that were not replaced during the four year refresh cycle; and (4) it could cause an inability to apply security patches. Based on industry data, waiting longer than the four-year cycle would increase hardware failures, security patch issues, and software compatibility concerns, resulting in additional downtime that could affect customer safety and storm restoration. The Company selected a four-year refresh cycle to alleviate these concerns.																	
DATES (phase end)																			
Initiation		Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution											
		In-Service/Go-Live			Closeout														
FUNDING SUMMARY																			
		2023		2024		2025		2026		2027		2028		2029		2030 +		Total	
Cap+COR		\$3.274		\$3.944		\$3.457		\$7.678		\$5.774		\$5.072		\$3.457		-		\$32.655	
O&M		\$0.002		\$0.005		\$0.005		\$0.005		\$0.005		\$0.005		\$0.005		-		\$0.033	
Total Cost of Ownership		\$3.276		\$3.949		\$3.462		\$7.683		\$5.779		\$5.077		\$3.462		-		\$32.688	
		2023		2024		2025		2026		2027		2028		2029		2030 +		Total	
Labor		\$0.015		\$0.033		\$0.055		\$0.134		\$0.097		\$0.083		\$0.055		-		\$0.473	
Outside Services		-		\$0.048		-		-		-		-		-		-		\$0.048	
Business Expense/Overheads		\$0.003		\$0.015		\$0.026		\$0.063		\$0.046		\$0.039		\$0.026		-		\$0.217	
Employee Benefits		-		-		-		-		-		-		-		-		-	
Materials		\$3.258		\$3.854		\$3.381		\$7.486		\$5.636		\$4.954		\$3.381		-		\$31.950	
Licenses, Permits & Fees		-		-		-		-		-		-		-		-		-	
Other		-		-		-		-		-		-		-		-		-	
Total Project Cost (Annual)		\$3.276		\$3.949		\$3.462		\$7.683		\$5.779		\$5.077		\$3.462		-		\$32.688	
VALUE & IMPACTS SUMMARY																			
FINANCIAL IMPACTS																			
		2023		2024		2025		2026		2027		2028		2029		2030 +		Total	
O&M		-		-		-		-		-		-		-		-		-	
Reduction		-		-		-		-		-		-		-		-		-	
Initial		\$0.002		\$0.005		\$0.005		\$0.005		\$0.005		\$0.005		\$0.005		-		\$0.033	
Incremental		-		-		-		-		-		-		-		-		-	
Net		\$0.002		\$0.005		\$0.005		\$0.005		\$0.005		\$0.005		\$0.005		-		\$0.033	
Cap+COR		-		-		-		-		-		-		-		-		-	
Reduction		-		-		-		-		-		-		-		-		-	
Initial		\$3.274		\$3.944		\$3.457		\$7.678		\$5.774		\$5.072		\$3.457		-		\$32.655	
Incremental		-		-		-		-		-		-		-		-		-	
Net		\$3.274		\$3.944		\$3.457		\$7.678		\$5.774		\$5.072		\$3.457		-		\$32.655	
Revenue		-		-		-		-		-		-		-		-		-	
Reduction		-		-		-		-		-		-		-		-		-	
Initial		-		-		-		-		-		-		-		-		-	
Incremental		-		-		-		-		-		-		-		-		-	
Net		-		-		-		-		-		-		-		-		-	
B/C Ratio (Overall)																			
Risk Tolerance																			
Corporate Risk		Impact		Likelihood		Description													
OTHER VALUE																			
Type		Description																	
Technology Capability		6 - Asset Management																	
Intangibles		Field Devices supports/enables asset and operational metric data entry; Work Order Process and Close Out; Resource Management Process (On-Premise vs Traveling/Non-Prem); Supports being able to display Engineering Design Process (Redline/Green Line Drawings), and Storm Restoration in the field by have reliable technology.																	
Intangibles		Replacing field equipment on a four-year refresh cycle benefits external customers because employees will be able to complete work in a timely manner, which increases customer satisfaction.																	
Risk Mitigation		The Company' research demonstrates that industry standards on refreshing hardware are generally three to five years. Using these recommendations allows the Company to: (1) Avoid increasing costs as the result of hardware failures, (2) avert customer frustration and employee downtime, (3) reduce security risks by ensuring that devices are updated and patched to prevent vulnerabilities, (4) continue operating system support as older versions are retired by the manufacturer, and (5) ensure employees have the required software to perform their work.																	

ARP-Infoblox Refresh		Report Pulled: 11/1/2024		Item ID: 6529					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Maintain - Interval			Work Type	Project				
Alias	ARP - Infoblox Refresh,ARP — Infoblox Refresh, ARP-Infoblox Refresh								
Description	This project will replace the three legacy core components, Domain Name System ("DNS"), Dynamic Host Configuration Protocol ("DHCP"), and Internet Protocol Address Management ("IPAM") also referred to as DDI ("DNS, DHCP, IPAM") environment with a modern, vendor supported system. Infoblox is the DDI solution that the Company uses to enable seamless network communications across critical systems.								
Portfolio	IT Services > Infrastructure > End User Computing > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-INFRASTRUCTURE PLATFORMS &				
WORK OBJECTIVES									
Problem Statement	When Infoblox Assets that are used to support customer interactions and ensure the stability of technology for business operations are obsolete or out-of-date, they are more expensive to support and can be more difficult to keep current with Security updates. Consumers Energy also runs the risk of failure of these assets if it does not adhere to a regular refresh cycle.								
Objectives	The value of this program includes: (1) enabling the Company to efficiently manage and control their networks; and (2) providing Domain Name System ("DNS"), Dynamic Host Configuration Protocol ("DHCP"), and Internet Protocol Address Management ("IPAM").								
Scope	The scope of this project includes the replacement of DNS, DHCP and IPAM assets on a 5-7 years refresh cycle.								
Alternatives	The alternative considered was to continue operating on existing Infoblox equipment past the vendor's end-of-support date. This alternative was not selected because it carries risks with not having vendor support, software bug fixes, security updates, and other software fixes. The alternative to replace the existing Infoblox equipment with the latest hardware and software provided by the vendor was selected to avoid these risks and continue a regular refresh cycle.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
	In-Service/Go-Live		Closeout						
FUNDING SUMMARY									
	2022	2023	2024	2025	2026	2027	2028	2029 +	Total
Cap+COR	-	-	-	\$0.978	\$0.197	\$0.120	-	-	\$1.296
O&M	-	-	-	\$0.054	\$0.032	-	-	-	\$0.086
Total Cost of Ownership	-	-	-	\$1.032	\$0.230	\$0.120	-	-	\$1.382
	2022	2023	2024	2025	2026	2027	2028	2029 +	Total
Labor	-	-	-	\$0.065	\$0.045	\$0.020	-	-	\$0.130
Outside Services	-	-	-	\$0.050	\$0.030	\$0.010	-	-	\$0.090
Business Expense/Overheads	-	-	-	\$0.022	\$0.017	-	-	-	\$0.039
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	\$0.895	\$0.137	\$0.090	-	-	\$1.122
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)	-	-	-	\$1.032	\$0.230	\$0.120	-	-	\$1.382
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2022	2023	2024	2025	2026	2027	2028	2029 +	Total
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	\$0.054	\$0.032	-	-	-	\$0.086
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	\$0.054	\$0.032	-	-	-	\$0.086
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	\$0.978	\$0.197	\$0.120	-	-	\$1.296
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	\$0.978	\$0.197	\$0.120	-	-	\$1.296
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)				-1.000					
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type						Description			
Technology Capability						Administrative & General (A&G) Support			
Intangibles						Every business-critical application is positively impacted by this refresh. Everything that runs on the network relies on this system.			
Risk Mitigation						The company' research demonstrates that industry standards on refreshing hardware are generally three to five years. Using these recommendations allows the Company to: (1) Avoid increasing costs as the result of hardware failures, (2) avert customer frustration and employee downtime, (3) reduce security risks by ensuring that devices are updated and patched to prevent vulnerabilities, (4) continue operating system support as older versions are retired by the manufacturer, and (5) ensure employees have the required software to perform their work.			

ARP-Local Area Network		Report Pulled: 11/1/2024		Item ID: 6789						
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Maintain - Interval			Work Type	Project					
Alias	LAN Refresh,Local Area Network Refresh, ARP - Local Area Network, ARP-Local Area Network									
Description	This project will upgrade the Company's entire LAN and a significant portion of the Wireless Local Area Network (WLAN).									
Portfolio	IT Services > Infrastructure > Network Services > * > * > *									
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-INFRASTRUCTURE PLATFORMS &					
WORK OBJECTIVES										
Problem Statement	At some Company locations, LAN equipment has been in service since 2011. If the LAN/WLAN hardware and software is not routinely refreshed, the Company will lose the manufacturer support needed for equipment bug fixes, security vulnerability patches, and enhancements. In addition, aging equipment cannot accommodate the increasing demand for wireless devices necessary to perform day-to-day operations that rely on wireless-enabled devices, such as rugged field devices, cell phones, barcode scanners, tablets, and other mobile devices. As equipment ages, it is at risk of higher failure rates, which increases the risk of unplanned outages. In the event of unplanned outages, business areas would not be able to access services on the corporate network including email, SAP, internet, and phones.									
Objectives	The project will create value for the Company and its customers by: (1) increasing network reliability; (2) adding new functionality; (3) improving network performance; (4) ensuring equipment is vendor supported, thereby ensuring support for bug fixes, security vulnerability patching, and enhanced features; (5) providing consistent wireless coverage across Company locations; (6) increasing user productivity through a higher performing wireless network, which increases the productivity and efficiency of office and field employees serving customers; and (7) improving support for wireless Internet Protocol (IP) phones, Internet of Things(IoT) and field devices.									
Scope	The project scope includes: (1) refreshing the LAN equipment and software across all Company sites; (2) identifying the required features for the new equipment; (3) implementing the new equipment according to industry best practices; (4) replacing wireless network with upgraded infrastructure and verifying wireless coverage is as expected; and (5) collecting wireless survey data for all Company locations in order to design improved wireless network coverage.									
Alternatives	The alternative considered was to continue operating on the existing platform past the vendors end-of-support date. The vendor support period ended in May of 2021, and paying for extended support is not an option offered by the vendor. The risk inherent in not refreshing the platform is a lack of vendor support resulting in an absence of software bug fixes, security updates, and break fixes. The Company chose to replace the existing equipment with the latest hardware and software available, following a five year refresh cycle.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution					
	In-Service/Go-Live		Closeout							
FUNDING SUMMARY										
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Cap+COR	\$4.846	\$4.190	\$0.320	\$0.511	\$0.474	\$0.367	\$0.375	-	\$11.083	
O&M	\$0.114	\$0.086	\$0.058	\$0.047	\$0.031	\$0.028	\$0.045	-	\$0.409	
Total Cost of Ownership	\$4.959	\$4.275	\$0.378	\$0.558	\$0.505	\$0.396	\$0.420	-	\$11.491	
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Labor	\$0.300	\$0.441	\$0.091	\$0.133	\$0.100	\$0.070	\$0.075	-	\$1.210	
Outside Services	\$0.240	\$0.571	\$0.029	\$0.033	\$0.017	\$0.015	\$0.025	-	\$0.930	
Business Expense/Overheads	\$0.089	\$0.154	\$0.028	\$0.014	\$0.011	\$0.009	\$0.010	-	\$0.314	
Employee Benefits	-	-	-	-	-	-	-	-	-	
Materials	\$4.047	\$3.016	\$0.231	\$0.379	\$0.377	\$0.302	\$0.310	-	\$8.660	
Licenses, Permits & Fees	\$0.283	\$0.094	-	-	-	-	-	-	\$0.377	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost (Annual)	\$4.959	\$4.275	\$0.378	\$0.558	\$0.505	\$0.396	\$0.420	-	\$11.491	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.114	\$0.086	\$0.058	\$0.047	\$0.031	\$0.028	\$0.045	-	\$0.409
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.114	\$0.086	\$0.058	\$0.047	\$0.031	\$0.028	\$0.045	-	\$0.409
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$4.846	\$4.190	\$0.320	\$0.511	\$0.474	\$0.367	\$0.375	-	\$11.083
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$4.846	\$4.190	\$0.320	\$0.511	\$0.474	\$0.367	\$0.375	-	\$11.083
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000								
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									
Technology Capability	Administrative & General (A&G) Support									
Risk Mitigation	The Company's research demonstrates that industry standards on refreshing hardware are generally two to three years. Using these recommendations allows the Company to: (1) Avoid increasing costs as the result of hardware failures; (2) avert customer frustrations and employee downtime; (3) reduce security risks by ensuring that devices are updated and patched to prevent vulnerabilities; (4) continue operating system support as older versions are retired by the manufacturer; and (5) ensure employees have the required software to perform their work. Manufacturer support will not be provided after May 2021. In the event of unplanned outages, the business would not be able to access the corporate network including email, SAP, internet, and phones.									

ARP-Operational Technology Support Gas				Report Pulled: 11/1/2024				Item ID: 6530			
EXECUTIVE SUMMARY											
BASIC INFORMATION											
Work Category		Maintain - Interval						Work Type Project			
Alias		ARP - Critical Infrastructure Support, 2014 CIS Asset Refresh, ARP — Operational Technology Support, ARP — Operational Technology Support Gas, ARP-Operational Technology Support Gas									
Description		The ARP- OT Support Gas project will replace dated and obsolete servers on a rotating 5 year refresh schedule.									
Portfolio		IT Services > Infrastructure > Data Center - Enterprise Computing > * > * > *									
Org		CX&T			Bus Unit INFORMATION TECHNOLOGY			Dept CX&T-IT-APPLICATION PLATFORMS & SERV			
WORK OBJECTIVES											
Problem Statement		When OT Assets that are used to support customer interactions and ensure the stability of technology for business operations are obsolete or out-of-date, they are more expensive to support and can be more difficult to keep current with Security updates. The Company also runs the risk of failure of these assets if it does not adhere to a regular refresh cycle.									
Objectives		This project creates value by maintaining the currency of the Company's IT infrastructure and the core enterprise software that are utilized to support the operation of the Company's critical gas infrastructure.									
Scope		The program scope consists of: (1) replacement of computer hardware under the program; and (2) installing additional new compute capacity to account for expanding business requirements.									
Alternatives		The alternatives considered include: (1) continue to operate hardware beyond a five year refresh cycle or (2) refresh hardware based on a five year refresh cycle along with evaluating the health of the asset and evolving business needs. The alternative to operate hardware beyond a five year refresh cycle was not selected due to the risk that these hardware component failures would cause system reliability and safety for customers. The Company chose the alternative to refresh this hardware based on a five year refresh cycle along with evaluating the health of the asset and evolving business needs to reduce the risk of impacting critical infrastructure that supports systems such as Gas SCADA and Gas Compression control systems.									
DATES (phase end)											
Initiation		Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution			
		In-Service/Go-Live			Closeout						
FUNDING SUMMARY											
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Cap+COR		\$0.245	\$1.033	\$0.979	\$2.766	\$1.937	\$1.911	\$2.643	-	\$11.515	
O&M		\$0.017	\$0.020	\$0.120	\$0.454	\$0.302	\$0.267	\$0.322	-	\$1.501	
Total Cost of Ownership		\$0.262	\$1.053	\$1.100	\$3.220	\$2.239	\$2.178	\$2.965	-	\$13.016	
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Labor		\$0.009	\$0.040	\$0.041	\$0.270	\$0.199	\$0.244	\$0.226	-	\$1.029	
Outside Services		\$0.006	\$0.009	\$0.022	-	-	-	-	-	\$0.037	
Business Expense/Overheads		\$0.003	\$0.006	\$0.077	\$0.281	\$0.201	\$0.220	\$0.254	-	\$1.041	
Employee Benefits		-	-	-	-	-	-	-	-	-	
Materials		\$0.046	\$0.931	\$0.902	\$2.564	\$1.769	\$1.652	\$2.411	-	\$10.274	
Licenses, Permits & Fees		\$0.198	\$0.068	\$0.058	\$0.105	\$0.070	\$0.062	\$0.074	-	\$0.634	
Other		-	-	-	-	-	-	-	-	-	
Total Project Cost (Annual)		\$0.262	\$1.053	\$1.100	\$3.220	\$2.239	\$2.178	\$2.965	-	\$13.016	
VALUE & IMPACTS SUMMARY											
FINANCIAL IMPACTS											
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
O&M		-	-	-	-	-	-	-	-	-	
Reduction		-	-	-	-	-	-	-	-	-	
Initial		\$0.017	\$0.020	\$0.120	\$0.454	\$0.302	\$0.267	\$0.322	-	\$1.501	
Incremental		-	-	-	-	-	-	-	-	-	
Net		\$0.017	\$0.020	\$0.120	\$0.454	\$0.302	\$0.267	\$0.322	-	\$1.501	
Cap+COR		-	-	-	-	-	-	-	-	-	
Reduction		-	-	-	-	-	-	-	-	-	
Initial		\$0.245	\$1.033	\$0.979	\$2.766	\$1.937	\$1.911	\$2.643	-	\$11.515	
Incremental		-	-	-	-	-	-	-	-	-	
Net		\$0.245	\$1.033	\$0.979	\$2.766	\$1.937	\$1.911	\$2.643	-	\$11.515	
Revenue		-	-	-	-	-	-	-	-	-	
Reduction		-	-	-	-	-	-	-	-	-	
Initial		-	-	-	-	-	-	-	-	-	
Incremental		-	-	-	-	-	-	-	-	-	
Net		-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)				-1.000							
Risk Tolerance											
Corporate Risk		Impact	Likelihood	Description							
Technology Obsolescence		High	High	The risks associated with not completing the program are both disruptive and adverse performance impacts on business operations that Operational Technology supports, which includes Gas Control and Gas Compressor Stations. The probability of these risks occurring increases as the age of the asset increases. Specifically: (1) There will be no security updates without the replacement, which increases our vulnerability. (2) Monitors to maintain the equipment will not be available. (3) Cyber security vulnerabilities will increase with aged systems, which make the systems more prone to attack and compromise. (4) This ensures compliance with TSA Security Directives and API standard 1164 required by the MPSC.							
OTHER VALUE											
Type		Description									
Technology Capability		Gas T&D, Gas Compression									
Risk Mitigation		The Company's research demonstrates that industry standards on refreshing hardware are generally three to five years. Using these recommendations allows the Company to: (1) Avoid increasing costs as the result of hardware failures, (2) avert customer frustration and employee downtime, (3) reduce security risks by ensuring that devices are updated and patched to prevent vulnerabilities, (4) continue operating system support as older versions are retired by the manufacturer, and (5) ensure employees have the required software to perform their work.									
Intangibles		This reduces the risk of potential cyber security incidents because upgraded systems have been built and calibrated for newer types of cyber-attacks. If the Operational Technology systems are not upgraded, it will affect the ability for Consumers Energy to meet the regulatory and compliance requirements needed for successful customer-facing operations.									

ARP-Physical Security		Report Pulled: 11/1/2024		Item ID: 8176					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Maintain - Interval			Work Type	Project				
Alias	Physical Security,Physical Security Asset Refresh, ARP-Physical Security								
Description	The ARP-Physical Security, formerly known as Physical Security Asset Refresh, will enhance or replace physical security assets to provide improved visibility and incident resolution related to security concerns.								
Portfolio	Corporate Services > Security Services > Security > * > * > *								
Org	CX&T	Bus Unit	SECURITY	Dept	CX&T-SECURITY-SECURITY PROGRAM MC				
WORK OBJECTIVES									
Problem Statement	The Company has several thousand physical security asset devices currently in use including security cameras, motion detectors, intrusion detection systems, and card access systems. Current limitations include the lack of integrated solutions for centralized management, situational awareness, real time monitoring, compliance with regulations and guidelines, and faster responses to emergencies and incidents. This could result in the increase of potential security vulnerabilities, associated penalties, and reputational damage.								
Objectives	The value provided by completing the project is to: (1) maintain compliance with State and Federal Regulations; (2) reduce redundancies with less of a need for multiple cameras and reducing gaps in functionality; and (3) optimize overall system performance.								
Scope	Included in the project is the enhancement or replacement of assets including: (1) advanced door systems at Company buildings; (2) security cameras for monitoring capabilities; and (3) gate and lock systems, which include security cameras, motion detectors, intrusion detection systems, and card access systems.								
Alternatives	Alternatives considered include: (1) not refreshing physical security assets, and (2) defer a portion of the refresh of physical security assets per an asset refresh cycle industry standard. Alternatives 1 and 2 were not selected due to the risk of security concerns, incident resolution, and the inability to meet FERC requirements. The alternative selected maintains compliance, reduces redundancies and gaps in functionality, and optimizes overall performance of physical security systems.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
	In-Service/Go-Live		Closeout						
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	\$1.438	\$1.552	\$1.903	\$2.473	\$2.475	\$2.475	\$2.475	-	\$14.790
O&M	\$0.014	\$0.030	\$0.013	\$0.013	\$0.013	\$0.013	\$0.013	-	\$0.107
Total Cost of Ownership	\$1.451	\$1.582	\$1.915	\$2.486	\$2.487	\$2.487	\$2.487	-	\$14.897
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	\$0.014	\$0.036	\$0.128	\$0.164	\$0.164	\$0.164	\$0.164	-	\$0.832
Outside Services	\$0.623	\$0.887	\$0.454	\$0.589	\$0.589	\$0.589	\$0.589	-	\$4.320
Business Expense/Overheads	\$0.016	\$0.002	\$0.335	\$0.435	\$0.435	\$0.435	\$0.435	-	\$2.091
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	\$0.799	\$0.657	\$0.999	\$1.299	\$1.300	\$1.300	\$1.300	-	\$7.653
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)	\$1.451	\$1.582	\$1.915	\$2.486	\$2.487	\$2.487	\$2.487	-	\$14.897
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.014	\$0.030	\$0.013	\$0.013	\$0.013	\$0.013	\$0.013	-	\$0.107
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.014	\$0.030	\$0.013	\$0.013	\$0.013	\$0.013	\$0.013	-	\$0.107
Cap+COR	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$1.438	\$1.552	\$1.903	\$2.473	\$2.475	\$2.475	\$2.475	-	\$14.790
Incremental	-	-	-	-	-	-	-	-	-
Net	\$1.438	\$1.552	\$1.903	\$2.473	\$2.475	\$2.475	\$2.475	-	\$14.790
Revenue	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000							
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
Theft/Accidental Disclosure	Low	Medium	Having cameras and other physical security assets can help uncover activities leading to potential thefts and or accidents.						
OTHER VALUE									
Type	Description								
Technology Capability	Compliance & Risk Management								
Risk Mitigation	Lack of life cycle replacement wouldn't allow for integrated solutions for centralized management, situational awareness, real time monitoring, compliance with regulations and guidelines, and faster, more effective/consistent response to emergencies and incidents which could result in the increase of potential security vulnerabilities, associated penalties and reputation damage.								
Intangibles	Security Visibility - Having updated camera/Door systems helps the security command center have been visibility into often un-monitored areas.								

ARP-Printer Asset Management (PAM)			Report Pulled: 11/1/2024			Item ID: 6671			
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Maintain - Interval					Work Type	Project		
Alias	Printer Asset Management,ARP — Printer Asset Management (PAM), ARP-Printer Asset Management (PAM)								
Description	This project will replace and install select printers, plotters, and multi-function printing devices based on printer replacement assessments and a five-year refresh cycle. Printer service and usage history is evaluated and a determination is made if a printer can be repurposed instead of ordering a new one.								
Portfolio	IT Services > Infrastructure > End User Computing > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY			Dept	CX&T-IT-INFRASTRUCTURE PLATFORMS &		
WORK OBJECTIVES									
Problem Statement	When Printer Assets used to support customer interactions and business operations are obsolete or out-of-date, they are more expensive to support and keep current with firmware and security updates. The Company also runs the risk of failure of these assets if it does not adhere to a regular refresh cycle.								
Objectives	This project creates value for the Company by: (1) improving the dependability of these printer devices for employees; (2) averting increased costs due to hardware repairs; and (3) ensuring compatibility with enterprise print applications.								
Scope	The project scope consists of the annual replacement of printer assets according to a five-year refresh cycle.								
Alternatives	The alternatives considered for the project included looking at refresh cycles from three to seven years as well as running the assets to failure. The selection of a five-year cycle was deemed to be the best solution since anything less than five years would increase the likelihood of unneeded expense for replacement of assets that were still in good operating condition. Anything greater than five years is assessed monthly to ensure it is not run-to-failure, including running the asset to failure, resulting in additional expenses for maintenance of the equipment and downtime, negatively affecting employee productivity. The Company assesses the printer fleet based on years of active service, service history, printer usage data, and the number of users within a facility. Based on these factors, the Company either decommissions, repurposes, leaves in place, or refreshes the printers.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition			Final Engineering, Planning & Design		Execution			
	In-Service/Go-Live			Closeout					
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	\$0.333	\$1.037	\$1.612	\$0.131	\$0.657	\$0.352	\$1.083	-	\$5.205
O&M	\$0.019	\$0.005	\$0.005	\$0.005	\$0.005	\$0.005	\$0.005	-	\$0.049
Total Cost of Ownership	\$0.352	\$1.042	\$1.617	\$0.136	\$0.662	\$0.357	\$1.088	-	\$5.254
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	\$0.030	\$0.035	\$0.030	\$0.002	\$0.011	\$0.006	\$0.031	-	\$0.144
Outside Services	\$0.001	\$0.007	-	-	-	-	-	-	\$0.008
Business Expense/Overheads	\$(0.013)	\$0.007	\$0.014	\$0.001	\$0.005	\$0.001	\$0.015	-	\$0.029
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	\$0.334	\$0.994	\$1.573	\$0.134	\$0.646	\$0.349	\$1.042	-	\$5.073
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)	\$0.352	\$1.042	\$1.617	\$0.136	\$0.662	\$0.357	\$1.088	-	\$5.254
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.019	\$0.005	\$0.005	\$0.005	\$0.005	\$0.005	\$0.005	-	\$0.049
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.019	\$0.005	\$0.005	\$0.005	\$0.005	\$0.005	\$0.005	-	\$0.049
Cap+COR	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.333	\$1.037	\$1.612	\$0.131	\$0.657	\$0.352	\$1.083	-	\$5.205
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.333	\$1.037	\$1.612	\$0.131	\$0.657	\$0.352	\$1.083	-	\$5.205
Revenue	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-1.000						
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
Technology Obsolescence	High	High	If Consumers Energy does not stay current with printer hardware, then it would not be able to use the updated software and would lose print functionality.						
OTHER VALUE									
Type	Description								
Technology Capability	Asset Management								
Risk Mitigation	The company' research demonstrates that industry standards on refreshing hardware are generally three to five years. Using these recommendations allows the Company to: (1) Avoid increasing costs as the result of hardware failures, (2) avert customer frustration and employee downtime, (3) reduce security risks by ensuring that devices are updated and patched to prevent vulnerabilities, (4) continue operating system support as older versions are retired by the manufacturer, and (5) ensure employees have the required software to perform their work.								
Technology Capability	The PAM program supports Engineering Design Process (Redline/Green Line Drawings), Storm Restoration (Hard Print for Damage Assessment). The daily print operations for Business Partners to complete their work as it relates to storms restorations, projects, D & E renderings and application process work.								

ARP-Radio		Report Pulled: 11/1/2024				Item ID: 8234				
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Maintain - Interval				Work Type	Project				
Alias	ARP - Wireless Network, ARP — Wireless Network, ARP — Radio, ARP-Radio									
Description	This project will refresh hardware to include; 800Mhz Radios and infrastructure, cellular modems, plant radios and systems, cellular amplification devices, vehicle consoles in service trucks, other communications equipment, and associated test equipment. This equipment supports mission critical voice and data communications for plant and field service personnel and dispatch personnel. 800MHz radios are upgraded on a 10-year lifecycle basis. Plant radio systems are upgraded on a scheduled 10-year lifecycle basis. Cellular modems are refreshed on a 5-year life cycle basis. Amplification systems are refreshed on a 10-year life cycle.									
Portfolio	IT Services > Infrastructure > Network Services > * > * > *									
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY		Dept	CX&T-IT-INFRASTRUCTURE PLATFORMS &				
WORK OBJECTIVES										
Problem Statement	800MHz, mobile, and portable radios, Plant radios systems, and Cellular modems support core business functions, life safety communications, and rapid response for restoration of customers service and critical infrastructure. Company radio and cellular systems must be refreshed on a scheduled basis or risk exceeding life expectancy and failing or becoming obsolete. The refresh of this equipment in a proactive manner is critical to providing service to customers. If these units are not refreshed, the increased risk of unit failure would result in interruptions to timely and concise communications to field personnel to resolve gas leaks, and downed electric lines, or service turn-on requests, which risks life safety.									
Objectives	This project creates value for customers and the Company by: (1) upholding public safety; (2) ensuring timely responses and repairs to emergent gas leaks, wire downs, and electric outages; (3) ensuring real-time communications between Company dispatch locations and crews in the field; (4) ensuring the safety of personnel working in higher risk workspaces by replacing equipment with units that contain intrinsically safe batteries; (5) supporting continuous improvement and training by replacing equipment that is capable of capturing audio recordings; and (6) remaining in compliance with MPSC regulatory requirements by maintaining critical radio infrastructure.									
Scope	The project scope consists of: (1) scheduled replacement of radios, modems, and consoles; and (2) installing additional radios modems and console assets to satisfy growth requirements; and (3) scheduled replacement of out of date cellular and radio boosters.									
Alternatives	The alternatives considered included: (1) Replace the existing units with new units from other radio and modem manufacturers; (2) purchase new radio subscriber units from existing manufacturers. Option 2 was not selected because the Company now uses a standards-based radio system allowing for multiple radio manufacturer options. Option 1 was selected to allow for a competitive bidding process that will provide the most cost-effective radio that will meet the needs of users.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition			Final Engineering, Planning & Design		Execution				
	In-Service/Go-Live			Closeout						
FUNDING SUMMARY										
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR		\$0.735	\$1.335	\$2.389	\$2.508	\$2.490	\$2.884	\$2.772	-	\$15.115
O&M		\$0.063	\$0.155	\$0.114	\$0.222	\$0.202	\$0.171	\$0.090	-	\$1.017
Total Cost of Ownership		\$0.798	\$1.490	\$2.503	\$2.730	\$2.692	\$3.055	\$2.863	-	\$16.132
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor		\$0.076	\$(0.233)	\$0.114	\$0.109	\$0.098	\$0.121	\$0.082	-	\$0.367
Outside Services		\$0.035	\$0.109	\$0.483	\$0.483	\$0.483	\$0.483	\$0.523	-	\$2.599
Business Expense/Overheads		\$(0.034)	\$0.009	\$0.074	\$0.078	\$0.074	\$0.085	\$0.073	-	\$0.359
Employee Benefits		-	-	-	-	-	-	-	-	-
Materials		\$0.719	\$1.605	\$1.832	\$2.061	\$2.037	\$2.367	\$2.185	-	\$12.807
Licenses, Permits & Fees		\$0.001	-	-	-	-	-	-	-	\$0.001
Other		-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)		\$0.798	\$1.490	\$2.503	\$2.730	\$2.692	\$3.055	\$2.863	-	\$16.132
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS										
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.063	\$0.155	\$0.114	\$0.222	\$0.202	\$0.171	\$0.090	-	\$1.017
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.063	\$0.155	\$0.114	\$0.222	\$0.202	\$0.171	\$0.090	-	\$1.017
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.735	\$1.335	\$2.389	\$2.508	\$2.490	\$2.884	\$2.772	-	\$15.115
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.735	\$1.335	\$2.389	\$2.508	\$2.490	\$2.884	\$2.772	-	\$15.115
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000								
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									
Technology Capability	Administrative & General (A&G) Support									
Avoided Costs	Cost avoidance of future Modem purchases. Transitioning cellular services from modems to devices avoids future yearly modem refresh costs of approximately \$420,000.									
Risk Mitigation	The company's research demonstrates that industry standards on refreshing radio hardware is generally seven to ten years. Using these recommendations allows the Company to: (1) Avoid increasing costs as the result of hardware failures, (2) mitigate customer frustration and employee downtime, (3) maintain high standards for customer and employee safety (4) maintain technology currency for employees to perform their work.									
Intangibles	The radio system funded through the ARP — Radio project supports core business functions such as storm restoration, emergency gas leak repair, and day-to-day customer support. By reinvesting in the system Consumers Energy extends the effectiveness of the system.									
Risk Mitigation	The risk inherent in not replacing these items is the extended support cost, which amounts to \$225,000 annually. Moreover, additional service hour, parts replacement, material, and setup costs would be incurred for outfitting of vehicles.									

ARP-Server and Storage			Report Pulled: 11/1/2024			Item ID: 8755				
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Maintain - Interval					Work Type	Project			
Alias	ARP - Server and Storage,ARP — Server and Storage, ARP-Server and Storage									
Description	This project will replace or augment server and storage infrastructure for the Company.									
Portfolio	IT Services > Infrastructure > Data Center - Storage > * > * > *									
Org	CX&T		Bus Unit	INFORMATION TECHNOLOGY		Dept	CX&T-IT-INFRASTRUCTURE PLATFORMS &			
WORK OBJECTIVES										
Problem Statement	When Server and Storage Hardware Assets used to support customer interactions and business operations are obsolete or out-of-date, they are more expensive to support and can be more challenging to keep current with Security updates. The Company also runs the risk of failure of these assets impacting customer interactions and business operations if it does not adhere to a regular five to seven-year refresh cycle.									
Objectives	This project creates value for the Company through: (1) improved stability and availability of business-critical applications by proactively replacing server and storage hardware assets prior to the likelihood of increasing hardware failures; and (2) ensuring that adequate resources are available to support application demands after five to seven years of actual use.									
Scope	The scope of this program encompasses: (1) replacement of server and storage hardware assets; and (2) installation of additional new computers and storage capacity to account for evolving business requirements.									
Alternatives	The alternatives considered were to purchase extended maintenance, move some of these assets to the cloud with the Digital -Hybrid Cloud and Data Center Migration project, or to replace the assets on the current cycle. The option to purchase extended maintenance was not selected because full support would not be offered after seven years, and maintenance costs would increase. The preferred option is to move some of these assets to the cloud in the Digital Hybrid Cloud and Data Center Migration project while refreshing the remainder using the five- to seven-year cycle as it is the most cost-effective option. If the Digital-Hybrid Cloud and Data Center Migration project is not approved as part of this rate case, the Company plans to continue to refresh these critical technologies at the current level based on a five- to seven-year refresh cycle to mitigate the risk of failure.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution			
	In-Service/Go-Live			Closeout						
FUNDING SUMMARY										
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR		\$2.267	\$0.774	\$1.740	\$2.303	\$8.171	\$3.978	-	-	\$19.233
O&M		\$0.273	\$0.113	\$0.139	\$0.483	\$0.757	\$0.214	-	-	\$1.979
Total Cost of Ownership		\$2.540	\$0.887	\$1.879	\$2.786	\$8.928	\$4.192	-	-	\$21.212
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor		\$0.271	\$0.104	\$0.480	\$0.365	\$0.640	\$0.470	-	-	\$2.331
Outside Services		\$0.157	\$0.071	-	\$0.010	\$0.100	-	-	-	\$0.338
Business Expense/Overheads		\$(0.042)	\$0.022	\$0.195	\$0.141	\$0.230	\$0.158	-	-	\$0.704
Employee Benefits		-	-	-	-	-	-	-	-	-
Materials		\$1.284	\$0.685	\$1.203	\$1.920	\$7.559	\$3.565	-	-	\$16.215
Licenses, Permits & Fees		\$0.871	\$0.004	-	\$0.350	\$0.400	-	-	-	\$1.625
Other		-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)		\$2.540	\$0.887	\$1.879	\$2.786	\$8.928	\$4.192	-	-	\$21.212
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.273	\$0.113	\$0.139	\$0.483	\$0.757	\$0.214	-	-	\$1.979
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.273	\$0.113	\$0.139	\$0.483	\$0.757	\$0.214	-	-	\$1.979
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$2.267	\$0.774	\$1.740	\$2.303	\$8.171	\$3.978	-	-	\$19.233
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$2.267	\$0.774	\$1.740	\$2.303	\$8.171	\$3.978	-	-	\$19.233
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000								
Risk Tolerance										
Corporate Risk	Impact	Likelihood		Description						
Technology Obsolescence	High	High		Consumers Energy's vendor, Nutanix only offers full support for seven years after purchase of a solution. After the end of support no more security patches are available and if an issue is encountered the manufacturer will not assist in resolving.						
OTHER VALUE										
Type	Description									
Technology Capability	Administrative & General (A&G) Support									
Avoided Costs	If all the existing hardware environment went beyond seven years, O&M would increase would by \$202,000. Each 1/7th of the environment not upgraded would equate to an increase in O&M by \$30,000.									
Avoided Costs	Maintenance costs would increase by about 15% after seven years over current amounts in the ITPM.									
Intangibles	Research firm IDC Economics reports that without proactive replacement server performance drops by 39%, annual support costs increase 148%, application management costs increase 40%, and unplanned downtime hours increase by 62%.									
Risk Mitigation	The Company's research demonstrates that industry standards on refreshing hardware are generally five to seven years. Using these recommendations allows the Company to: (1) Avoid increasing costs as the result of hardware failures; (2) avert customer frustration and employee downtime; (3) reduce security risks by ensuring that devices are updated and patched to prevent vulnerabilities; (4) continue operating system support as older versions are retired by the manufacturer; and (5) ensure employees have the required software to perform their work.									

ARP-Workstation Asset Management (WAM)				Report Pulled: 11/1/2024				Item ID: 8242			
EXECUTIVE SUMMARY											
BASIC INFORMATION											
Work Category		Maintain - Interval						Work Type		Project	
Alias		ARP - Workstation Asset Management (WAM),ARP — Workstation Asset Management (WAM), ARP-Workstation Asset Management (WAM)									
Description		This project will replace and install new desktops, laptops, and tablets on a four-year refresh cycle based on industry standards, hardware failures, security patches, and software compatibility. Monitors will be replaced every eight years based on Company data related to historical failure rates.									
Portfolio		IT Services > Infrastructure > End User Computing > * > * > *									
Org		CX&T				Bus Unit		INFORMATION TECHNOLOGY		Dept CX&T-IT-INFRASTRUCTURE PLATFORMS &	
WORK OBJECTIVES											
Problem Statement		When Workstation Assets that are used to support customer interactions and business operations are obsolete or out-of-date, they are more expensive to support and keep current with security updates as equipment becomes obsolete. The Company also runs the risk of failure of these assets if it does not adhere to a regular refresh cycle.									
Objectives		This project creates value for the Company by: (1) improving stability and availability of business-critical applications by proactively replacing workstations prior to increasing hardware failures; and (2) allowing business partners to complete their job tasks.									
Scope		The project scope consists of: (1) replacing workstation assets; and (2) installing new units for new resources.									
Alternatives		The alternatives considered were to: (1) extend the replacement cycle from four years to five years for all desktops and laptops; (2) extend the replacement cycle only on desktops from four years to five years; and (3) use outdated equipment. The Company did not select these options because: (1) there would be an increased risk of hardware failure and equipment outages that could impact the capacity of business partners to complete job tasks; (2) it could cause applications to run poorly or stop functioning; (3) it would increase the ARP in future years based on the number of devices that were not replaced during the four year refresh cycle ; and (4) it could cause an inability to apply security patches. Based on industry data, waiting longer than the four-year cycle would increase hardware failures, security patch issues, and software compatibility concerns, resulting in additional downtime that could affect customer safety and storm restoration. The Company selected a four-year refresh cycle for desktops, laptops, and tablets; and an eight-year cycle for monitors to alleviate these concerns.									
DATES (phase end)											
Initiation		Project Plan & Scope Definition				Final Engineering, Planning & Design				Execution	
		In-Service/Go-Live				Closeout					
FUNDING SUMMARY											
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Cap+COR		\$6,152	\$5,917	\$8,982	\$6,070	\$7,020	\$8,657	\$10,765	-	\$53,563	
O&M		\$0.119	\$0.028	\$0.090	\$0.061	\$0.071	\$0.087	\$0.109	-	\$0.565	
Total Cost of Ownership		\$6,272	\$5,945	\$9,072	\$6,131	\$7,091	\$8,744	\$10,873	-	\$54,128	
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Labor		\$0.251	\$0.261	\$0.215	\$0.145	\$0.139	\$0.178	\$0.216	-	\$1.405	
Outside Services		\$0.060	\$0.018	\$0.127	\$0.085	\$0.081	\$0.104	\$0.127	-	\$0.602	
Business Expense/Overheads		\$0.113	\$0.011	\$0.108	\$0.073	\$0.070	\$0.089	\$0.108	-	\$0.572	
Employee Benefits		-	-	-	-	-	-	-	-	-	
Materials		\$5,848	\$5,654	\$8,622	\$5,828	\$6,801	\$8,373	\$10,422	-	\$51,549	
Licenses, Permits & Fees		-	-	-	-	-	-	-	-	-	
Other		-	-	-	-	-	-	-	-	-	
Total Project Cost (Annual)		\$6,272	\$5,945	\$9,072	\$6,131	\$7,091	\$8,744	\$10,873	-	\$54,128	
VALUE & IMPACTS SUMMARY											
FINANCIAL IMPACTS											
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
O&M	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	\$0.119	\$0.028	\$0.090	\$0.061	\$0.071	\$0.087	\$0.109	-	\$0.565	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	\$0.119	\$0.028	\$0.090	\$0.061	\$0.071	\$0.087	\$0.109	-	\$0.565	
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	\$6,152	\$5,917	\$8,982	\$6,070	\$7,020	\$8,657	\$10,765	-	\$53,563	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	\$6,152	\$5,917	\$8,982	\$6,070	\$7,020	\$8,657	\$10,765	-	\$53,563	
Revenue	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	-	-	-	-	-	-	-	-	-	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)				-1.000							
Risk Tolerance											
Corporate Risk		Impact	Likelihood	Description							
Technology Obsolescence		High	High	There is a high risk of hardware failure, the inability to keep current with security updates, and software compatibility issues without the four-year refresh.							
OTHER VALUE											
Type		Description									
Technology Capability		6 - Asset Management									
Avoided Costs		Future year costs would increase if equipment is not refreshed in planned year.									
Risk Mitigation		The company' research demonstrates that industry standards on refreshing hardware are generally eight years. Using these recommendations allows the Company to: (1) Avoid increasing costs as the result of hardware failures, (2) avert customer frustration and employee downtime, (3) reduce security risks by ensuring that devices are updated and patched to prevent vulnerabilities, (4) continue operating system support as older versions are retired by the manufacturer, and (5) ensure employees have the required software to perform their work.									
Technology Capability		The WAM program enables and supports all administrative, engineering, operational, and corporate process and activities.									

Asset Accounting Tax Upgrade		Report Pulled: 11/1/2024		Item ID: 13966					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Maintain - Interval			Work Type	Project				
Alias	, Asset Accounting Upgrade, Asset Accounting Upgrade 2026, Asset Accounting Upgrade 2025-2026, Asset Accounting Upgrade 2026, Asset Accounting Upgrade 2025-2027, Asset Accounting Tax Upgrade								
Description	The project will upgrade our current accounting asset management tax software to the SaaS version as required by the vendor or a replacement solution and implement additional new features, ensuring continued support of a critical financial application, and providing new functionality.								
Portfolio	IT Services > Applications > Corporate Services > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-CORPORATE				
WORK OBJECTIVES									
Problem Statement	In 2025, standard vendor support ends for the current on-premise PowerTax software. Losing vendor support creates security and stability risk that can result in performance issues. When the application is out of the normal support with the vendor, the Company no longer receives security patches, support for defect resolution or bug fixes, and cannot enhance the application. To ensure compliance with regulated and financial accounting in the fixed asset sub-ledger, it is necessary to perform an upgrade and maintain vendor support. In addition, the upgrade provides additional functionality to increase the frequency of financial reporting and improve visibility.								
Objectives	This project creates value for the Company by ensuring compliance with regulated and financial accounting within the fixed asset sub-ledger. In addition, the project adds value by: (1) moving to a SaaS solution in order stay supported; and (2) reducing security, stability, and performance risk by ensuring consistent, seamless vendor support.								
Scope	The project scope includes: (1) evaluating current vendor/product solution with market leaders; (2) upgrading the vendor software from the current version to the newer SaaS version or replacing it.								
Alternatives	Alternatives considered include: (1) Evaluate other software options. This option will introduce new ongoing support costs and integrations and may not provide regulatory reporting and other needed improvements. (2) Do nothing and remain on unsupported, on-prem tax solution. This option introduces technical and financial risk which would be costly; (3) Upgrade to the newest SaaS version of current on-prem solution. This is the preferred option as it will reduce hardware and server support costs, provide more frequent software upgrades, avoid database and server upgrades, provide weekly allocation functionality, and provide new features in job scheduling, regulatory reporting for Cost of Service, reporting, and centralized error processing.								
DATES (phase end)									
Initiation 2/1/2025	Project Plan & Scope Definition 3/31/2025 In-Service/Go-Live 10/15/2025		Final Engineering, Planning & Design 4/30/2025 Closeout 1/31/2026		Execution 9/2/2025				
FUNDING SUMMARY									
	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>	<u>2032 +</u>	<u>Total</u>
Cap+COR	-	-	-	-	-	-	-	-	-
O&M	\$0.403	\$0.336	\$0.278	\$0.278	\$0.278	-	-	-	\$1.573
Total Cost of Ownership	\$0.403	\$0.336	\$0.278	\$0.278	\$0.278	-	-	-	\$1.573
	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>	<u>2032 +</u>	<u>Total</u>
Labor	\$0.109	\$0.027	-	-	-	-	-	-	\$0.136
Outside Services	\$0.217	\$0.027	-	-	-	-	-	-	\$0.244
Business Expense/Overheads	\$0.023	\$0.004	-	-	-	-	-	-	\$0.027
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	\$0.054	\$0.278	\$0.278	\$0.278	\$0.278	-	-	-	\$1.166
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	\$0.403	\$0.336	\$0.278	\$0.278	\$0.278	-	-	-	\$1.573
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>	<u>2032 +</u>	<u>Total</u>
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.403	\$0.336	\$0.278	\$0.278	\$0.278	-	-	-	\$1.573
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.403	\$0.336	\$0.278	\$0.278	\$0.278	-	-	-	\$1.573
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-1.000						
Risk Tolerance									
<u>Corporate Risk</u>	<u>Impact</u>	<u>Likelihood</u>	<u>Description</u>						
OTHER VALUE									
<u>Type</u>	<u>Description</u>								
Technology Capability	9 - A&G Support								
Risk Mitigation	Performing this upgrade ensures continued vendor support of a critical application.								
Intangibles	The Company improves its financial visibility and ability to react to changing information as a result of running the allocation process on a more frequent basis.								
Risk Mitigation	Upgrading the software ensures continued compliance with regulated and financial accounting within the fixed asset sub-ledger.								

Asset Accounting Upgrade		Report Pulled: 11/1/2024		Item ID: 10473						
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Maintain - Interval			Work Type	Project					
Alias	, Asset Accounting Upgrade									
Description	The project will upgrade our current accounting asset management software to the latest version as required by the vendor and implement additional new features, ensuring continued support of a critical financial application and providing new functionality.									
Portfolio	IT Services > Applications > Corporate Services > * > * > *									
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-PLANNING & GOV					
WORK OBJECTIVES										
Problem Statement	In 2022, standard vendor support ends for the current on-premise software. Losing vendor support creates security and stability risk that can result in performance issues. When the application is out of the normal support with the vendor, the Company no longer receives security patches, support for defect resolution or bug fixes, and cannot enhance the application. To ensure compliance with regulated and financial accounting in the fixed asset sub-ledger, it is necessary to perform an upgrade and maintain vendor support. In addition, the upgrade provides additional functionality to increase the frequency of financial reporting and improve visibility. The current monthly allocation process has limited visibility to Company financial performance, and the upgrade provides functionality that allows more frequent allocation processes. Additionally, implementing the vendor's regulatory module eliminates the time-consuming and labor-intensive process of manual data extracts for regulatory analysis used for Cost of Service modeling.									
Objectives	This project creates value for the Company by ensuring compliance with regulated and financial accounting within the fixed asset sub-ledger. In addition, the project adds value by: (1) performing the allocation process on a more frequent basis providing better financial visibility; (2) eliminating the labor intensive and time-consuming process of pulling data for regulatory analysis used for Cost of Service; (3) automating manual tasks; and (4) reducing security, stability, and performance risk by ensuring consistent, seamless vendor support.									
Scope	The project scope includes: (1) upgrading the vendor software from the current version to the newer version; (2) implementing new functionality that includes features for the regulatory Cost of Service analysis, additional reporting, job scheduling, and centralized error processing; and (3) populating the data lake with data from the asset accounting system for improved reporting.									
Alternatives	Alternatives considered include: (1) Upgrade to the newest, cloud version of PowerPlan. This is the preferred option as it will reduce hardware and server support costs, provide more frequent software upgrades, avoid database and server upgrades, provide weekly allocation functionality, and provide new features in job scheduling, regulatory reporting for Cost of Service, reporting, and centralized error processing. (2) Evaluate SAP options for leasing, asset, and tax management capabilities. While this option would eliminate the need for an interface between SAP and PowerPlan, it would likely be more complex, cost more, and may not provide all the required features. (3) Evaluate other software options. This option will introduce new ongoing support costs and integrations and may not provide regulatory reporting and other needed improvements.									
DATES (phase end)										
Initiation 7/19/2021	Project Plan & Scope Definition 2/17/2022 In-Service/Go-Live 10/13/2022		Final Engineering, Planning & Design 6/23/2022 Closeout 2/28/2023		Execution 10/12/2022					
FUNDING SUMMARY										
Cap+COR	2021	2022	2023	2024	2025	2026	2027	2028 +	Total	
O&M	\$0.926	\$2.892	\$0.812	-	-	-	-	-	\$4.631	
	\$0.032	\$0.086	\$0.115	\$0.027	\$0.050	\$0.050	\$0.050	-	\$0.410	
Total Cost of Ownership	\$0.959	\$2.978	\$0.927	\$0.027	\$0.050	\$0.050	\$0.050	-	\$5.041	
Labor	2021	2022	2023	2024	2025	2026	2027	2028 +	Total	
Outside Services	\$0.031	\$0.338	\$0.213	-	-	-	-	-	\$0.582	
Business Expense/Overheads	\$0.924	\$1.485	\$0.569	\$0.027	-	-	-	-	\$3.005	
Employee Benefits	\$0.004	\$0.229	\$0.145	-	-	-	-	-	\$0.378	
Materials	-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees	-	\$0.925	-	-	-	-	-	-	\$0.925	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost	\$0.959	\$2.978	\$0.927	\$0.027	-	-	-	-	\$4.891	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS		2021	2022	2023	2024	2025	2026	2027	2028 +	Total
O&M	Reduction	-	-	\$(0.010)	\$(0.010)	\$(0.010)	\$(0.010)	\$(0.010)	-	\$(0.050)
	Initial	\$0.032	\$0.086	\$0.115	\$0.027	\$0.050	\$0.050	\$0.050	-	\$0.410
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.032	\$0.086	\$0.105	\$0.017	\$0.040	\$0.040	\$0.040	-	\$0.360
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.926	\$2.892	\$0.812	-	-	-	-	-	\$4.631
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.926	\$2.892	\$0.812	-	-	-	-	-	\$4.631
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-0.993								
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE						Description				
Type	Technology Capability					9 - A&G Support				
Risk Mitigation						Performing this upgrade ensures continued vendor support of a critical application.				
Intangibles						The Company improves its financial visibility and ability to react to changing information as a result of running the allocation process on a more frequent basis.				
Intangibles						The Property Accounting area will eliminate waste and increase productivity by eliminating the labor intensive and time-consuming process of pulling data for regulatory analysis used to determine Cost of Service.				
Risk Mitigation						Upgrading the software ensures continued compliance with regulated and financial accounting within the fixed asset sub-ledger.				

Asset Accounting Upgrade 25-26

AxWay Secure Transport 2024 Upgrade		Report Pulled: 11/1/2024		Item ID: 11748					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Maintain - Interval			Work Type	Project				
Alias	, AxWay Secure Transport Upgrade, AxWay Secure Transport 2024 Upgrade, AxWay Secure Transport 2025 Upgrade, AxWay Secure Transport 2024 Upgrade								
Description	Axway SecureTransport is the Company's multi-protocol Managed File Transfer ("MFT") gateway for securing, managing, and tracking data file flow for our business partners and external vendors. Files impacting billing, HR, Supply Chain, Finance, Alternate Energy Programs, Front Office, Back Office, Device Management, Outage Management and Business Reporting functions utilize these services. This project will update the platform to the current software version, enabling cost saving operational enhancements while retaining data security and platform supportability.								
Portfolio	IT Services > Applications > Foundational Enterprise Applications > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-APPLICATION PLATFORMS & SER				
WORK OBJECTIVES									
Problem Statement	As Axway Secure Transport is the public-facing managed file transfer gateway, maintaining platform version integrity is critical to ensuring it remains secure and supportable in the event of a cyber attack, outage or other critical incident. A prolonged outage or incident, for any reason, compromises the ability of the Company to perform mission-critical business transactions in finance, operations and direct customer support. Upgrading this application also gives the Company the opportunity to properly scale SecureTransport and take advantage of the growing demand for additional, cost-savings features of the tool, such as managing internal Electronic Data Interchange transactions.								
Objectives	The value this project brings Consumers Energy and customers includes: (1) Addressing known problems and limitations of the current software and hardware platforms. (2) Ensuring continued secure, scalable, and critical data transmission services running through Axway continue functioning. (3) Creating the capacity to methodically merge/streamline internal and external data file transfer services to eliminate waste. (4) Merging/streamlining the company data file transfer services reducing cyber-attack vectors and creates a more easily maintained and monitored security model.								
Scope	The scope of this project includes (1) Upgrading the application and database to the current released and supported versions. (2) Refreshing the underlying application infrastructure by upgrading to the latest operating system and hardware platforms. (3) Enable and test expanded Electronic Data Interchange (EDI) functionality.								
Alternatives	Alternatives considered include: (1) deferring the upgrade. This alternative was not selected because the Axway SecureTransport platform handles critical Company financial, HR and operational transactions--the risk associated with problems stemming from an outdated and unsupported version is too high. Nor would the waste elimination benefits of using the upgraded Axway platform to start consolidating EDI for CE be realized. (2) Replacing the platform. The estimated project costs and timetable for replacing the business functions currently performed by the existing Axway SecureTransport platform would be extensive, and operationally, it is not well suited for a cloud or hybrid cloud solution. In addition to significant platform, application, implementation and functional testing costs, replacing it would require extensive coordination and testing with all of the internal and external account holders, taking upwards of one calendar year. (3) Upgrading the platform. This provides the Company the most cost-effective alternative, balancing costs, known risks, and even growing business capacity and productivity.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
1/1/2024	1/15/2024		2/1/2024		2/15/2024				
	In-Service/Go-Live		Closeout						
	9/14/2024		9/20/2024						
FUNDING SUMMARY									
	2024	2025	2026	2027	2028	2029	2030	2031 +	Total
Cap+COR	-	-	-	-	-	-	-	-	-
O&M	\$0.477	-	-	-	-	-	-	-	\$0.477
Total Cost of Ownership	\$0.477	-	-	-	-	-	-	-	\$0.477
	2024	2025	2026	2027	2028	2029	2030	2031 +	Total
Labor	\$0.038	-	-	-	-	-	-	-	\$0.038
Outside Services	\$0.434	-	-	-	-	-	-	-	\$0.434
Business Expense/Overheads	\$0.005	-	-	-	-	-	-	-	\$0.005
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	\$0.000	-	-	-	-	-	-	-	\$0.000
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	\$0.477	-	-	-	-	-	-	-	\$0.477
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2024	2025	2026	2027	2028	2029	2030	2031 +	Total
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.477	-	-	-	-	-	-	-	\$0.477
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.477	-	-	-	-	-	-	-	\$0.477
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000							
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
Technology Obsolescence	High	Medium	An out-of-support version of Secure Transport that Axway no longer provides hotfixes for will put the company network at risk as this is an external (internet) facing application.						
OTHER VALUE									
Type	Description								
Technology Capability	Customer Management								
Intangibles	Newer versions of Secure Transport will assist in improving performance of the platform through bug fixes and performance tuning.								
Risk Mitigation	The upgrade work will allow CE to harden the application and eliminate a significant single point of failure.								

Business Continuity - Program Management Tool			Report Pulled: 11/1/2024		Item ID: 12679				
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow			Work Type	Project				
Alias	, Business Continuity - Disaster Recovery Planning Tool, Business Continuity - Program Management Tool								
Description	The Business Continuity Program Management Tool is critical for successful and effective Business Continuity, Disaster Recovery, and Emergency Management Programs. The software tool will provide automation, enhance the company's incident management processes, establish critical linkages between departments and essential functions they support, and it will perform necessary analysis before, during, and after a disruption that allows for the efficient response to minimize downtime.								
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *								
Org	CX&T	Bus Unit	SECURITY	Dept	CX&T-SECURITY-CORPORATE SECURITY				
WORK OBJECTIVES									
Problem Statement	The current business continuity and disaster recovery program management tool does not offer the capabilities to advance program maturity and to foster a world class response to a business interruption. The current tool limits automation opportunities and has gaps in how it handles template enhancements, which results in the need for manual workarounds in order to prevent losing critical data. The lack of capability affects reporting, upstream / downstream impact mapping, Incident Command System (ICS) documentation automation, and user administration.								
Objectives	This project will create value for the Company by: (1) maintaining the documentation that supports the recovery efforts of critical processes and associated essential functions that, if disrupted, would present significant impact to the Company and our customers; (2) limiting business and community impact while providing a critical energy service; (3) prioritization of the recovery of critical processes and resource allocation during a business continuity incident(s); (4) providing a consistent, organized and expedient response process (Incident Command System) that is flexible to meet the needs of any incident, regardless of severity or scope; (5) providing a mechanism for identifying restoration gaps between critical business processes and IT recovery capabilities; (6) reducing or eliminating human error and waste; and (7) improved and more efficient user experience.								
Scope	The project scope includes: (1) framework for the development and maintenance of Business Continuity, System (Application) Recovery Plans, Incident Command System, and Disaster Recovery Plans that are effective and easily accessible during an event; (2) automation for reporting to track status and to measure effectiveness and maturity of the program (Business Continuity, Emergency Management, Disaster Recovery Programs); (3) component for facilitating effective training exercises and response efforts through incident management tools that utilize concepts from the Federal Emergency Management Agency (FEMA) National Incident Management System (NIMS); (4) program management tools to monitor required program deliverables; (5) template for developing and maintaining site hazard assessments; (6) dependency mapping of critical business processes and IT applications; and (7) integrated business impact analysis process.								
Alternatives	Alternatives considered include: (1) continue to use Riskomnet (current Disaster Recovery tool). This alternative was not selected because it currently does not offer the capabilities to advance program maturity and to foster a world class response to a business interruption. (2) Revert back to manual process. This alternative was not selected because the manual process is time consuming, leads to human struggle and duplicative work. A previous KPMG Audit of the Business Continuity Program indicated the need for interdependency mapping and a software tool is the best way to accomplish this. (3) Implement a best-in-class Cloud Software as a Service (SaaS) solution. This alternative was selected because there are better SaaS solutions that fit the needs outlined above. The final application will be determined after a Request For Proposal is issued and a vendor is selected in the project plan phase.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
5/2/2026	7/2/2026		8/6/2026		1/5/2027				
	In-Service/Go-Live		Closeout						
	2/2/2027		3/2/2027						
FUNDING SUMMARY									
	2025	2026	2027	2028	2029	2030	2031	2032 +	Total
Cap+COR	-	-	-	-	-	-	-	-	-
O&M	-	\$0.109	\$0.144	\$0.095	-	-	-	-	\$0.348
Total Cost of Ownership	-	\$0.109	\$0.144	\$0.095	-	-	-	-	\$0.348
	2025	2026	2027	2028	2029	2030	2031	2032 +	Total
Labor	-	\$0.075	\$0.019	-	-	-	-	-	\$0.094
Outside Services	-	\$0.027	\$0.027	-	-	-	-	-	\$0.054
Business Expense/Overheads	-	\$0.007	\$0.003	-	-	-	-	-	\$0.010
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	\$0.073	\$0.073	-	-	-	-	\$0.145
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	-	\$0.109	\$0.122	\$0.073	-	-	-	-	\$0.304
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS	2025	2026	2027	2028	2029	2030	2031	2032 +	Total
O&M	Reduction	-	\$0.109	\$0.144	\$0.095	-	-	-	\$0.348
	Initial	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-
	Net	-	\$0.109	\$0.144	\$0.095	-	-	-	\$0.348
Cap+COR	Reduction	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-
Revenue	Reduction	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-1.000						
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Avoided Costs	A new tool leveraging automation would enable Emergency Management Department to save 176 labor hours annually. Calculation: once per quarter, 12 hours is spent going through data for 99 departments to ensure program deliverables are on track. On average 6 hours a week is composing follow-up emails and updating the tracking spreadsheet. About 2-4 hours								
Intangibles	Cloud allows for maintenance, upgrades, and patching with no employee/contractor down time.								
Technology Capability	Compliance & Risk Management								
Risk Mitigation	Having an incident management component enables direct connection to emergency response plans and business continuity plans to facilitate a more efficient response. Incident Command System forms and tools that are integrated will save time and provide clear and concise reporting and recordkeeping. Current planning documentation for incidents is challenging to use, format, produce actionable plans, and get approvals. Current recordkeeping is very manual. This tool will provide a one-stop repository for planning, delivering the plans, recording the progress through multiple operational periods of an incident, and housing records. It will enable improved after-action reporting, tracking, and follow-up such as after-action task assignment, completion date tracking and assignment, late task completion resolution, advanced management-level reporting, and integration to other work management systems such as ServiceNow and SAP to enable pre-populating forms for incidents that begin in other work management applications.								
Risk Mitigation	Having cloud with break glass accounts enables the company to access Emergency Response Plans (ERPs), Incident Command System (ICS) forms, and Business Continuity/Disaster Recovery Plans from any device in an event. Break glass accounts are native to the solution that is not managed within CE authentication so if CE gets hit with a ransomware attack or some other event that disables the network, these accounts can be used to still access the tool to get to the plans to assist with recovery.								
Intangibles	If no tool is selected to replace the existing SaaS solution and the Company resorted to manual paper processes, Consumers Energy (CE) would have a higher risk of not being able to access mission-critical documentation during events. For Business Continuity, CE would not be able to mature the program and existing programs and preparedness/recovery gaps would remain.								

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Compression Air Permit And Compliance Digitalization				Report Pulled: 11/1/2024				Item ID: 12841			
EXECUTIVE SUMMARY											
BASIC INFORMATION											
Work Category		Strategic/Grow						Work Type Project			
Alias		ER Mobility, Generation Operations Work Management Mobility, Generation Operations Digital Work Management, Generation Operations And Compression Digital Work Management, Generation Compression Digital Work Management, Compression Digital Work Management, Generation Compression Digital Work Management, Gas Compression									
Description		This project modernizes and expands the use of software and digitized forms in support of station air permits and code compliance at Gas Compression facilities.									
Portfolio		Gas Delivery Systems> Gas Operations > IT Projects> IT Projects> * > *									
Org		CX&T				Bus Unit INFORMATION TECHNOLOGY		Dept CX&T-IT-GAS			
WORK OBJECTIVES											
Problem Statement		The current process around air permits and compliance for Gas Compression is cumbersome, largely paper based, and is made up of multiple disconnected systems. This leads to poor viability, process inefficiency and waste, re-work, regulatory risk, and human error.									
Objectives		his project provides value to the Company through: (1) increased productivity by direct data entry in the field, (2) improved quality through increased accuracy of updates completed at the time and place of the work; (3) elimination of the need to enter data into multiple disconnected systems, and (4) improved safety through access to real-time information used at work sites rather than printed procedures and forms.									
Scope		The scope of the project includes: (1) Merging the existing air permit and compliance tools into a single solution, (2) purchasing licenses to add Gas Compression users to the company's existing mobile work management software, and (3) configuring changes in SAP and the mobile work management software to replace the paper-dependent process with the ability to access and update maintenance, operations, and safety information for Gas Compression.									
Alternatives		Alternatives considered include: (1) Utilize an SAP work management mobile solution. An SAP work management solution was not selected since it is an unproven solution at the Company and would require additional project and support costs. (2) Continue with the manual paper-based processes and forms. Continuing with the manual paper-based processes and forms was not selected because it would not eliminate the identified process waste, re-work, and human error. (3) Customize the existing electronic Shift Operations Management System (eSOMS) mobile application to add work management functions. A customized mobile application was not chosen because it would require additional project cost and an ongoing support budget for a custom solution that the product was not intended to support. (4) Adopt a cloud based SAAS solution. This option was not selected as it was a high-cost option. (5) Utilize the existing Service Suite solution currently deployed for Gas and Electric Distribution. The Service Suite solution was selected because it is both an industry standard and a proven solution at the Company and provides the required mobility and digital benefits at a lower cost than other options.									
DATES (phase end)											
Initiation 1/6/2026		Project Plan & Scope Definition 4/30/2026 In-Service/Go-Live 2/24/2027				Final Engineering, Planning & Design 6/30/2026 Closeout 3/31/2027		Execution 2/24/2027			
FUNDING SUMMARY											
		2025	2026	2027	2028	2029	2030	2031	2032 +	Total	
Cap+COR		-	\$0.462	\$0.282	-	-	-	-	-	\$0.744	
O&M		-	\$0.046	\$0.064	\$0.010	\$0.010	\$0.010	\$0.010	-	\$0.150	
Total Cost of Ownership		-	\$0.508	\$0.346	\$0.010	\$0.010	\$0.010	\$0.010	-	\$0.894	
		2025	2026	2027	2028	2029	2030	2031	2032 +	Total	
Labor		-	\$0.343	\$0.242	-	-	-	-	-	\$0.585	
Outside Services		-	-	-	-	-	-	-	-	-	
Business Expense/Overheads		-	\$0.164	\$0.102	-	-	-	-	-	\$0.266	
Employee Benefits		-	-	-	-	-	-	-	-	-	
Materials		-	\$0.002	\$0.002	-	-	-	-	-	\$0.003	
Licenses, Permits & Fees		-	-	-	-	-	-	-	-	-	
Other		-	-	-	-	-	-	-	-	-	
Total Project Cost		-	\$0.508	\$0.346	-	-	-	-	-	\$0.854	
VALUE & IMPACTS SUMMARY											
FINANCIAL IMPACTS		2025	2026	2027	2028	2029	2030	2031	2032 +	Total	
O&M	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	-	\$0.046	\$0.064	\$0.010	\$0.010	\$0.010	\$0.010	-	\$0.150	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	-	\$0.046	\$0.064	\$0.010	\$0.010	\$0.010	\$0.010	-	\$0.150	
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	-	\$0.462	\$0.282	-	-	-	-	-	\$0.744	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	-	\$0.462	\$0.282	-	-	-	-	-	\$0.744	
Revenue	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	-	-	-	-	-	-	-	-	-	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)				-1.000							
Risk Tolerance											
Corporate Risk		Impact	Likelihood	Description							
OTHER VALUE											
Type	Description										
Intangibles	Employee Engagement improves as the more tech savvy candidate pool for these positions are looking for mobile tools to help them do their jobs.										
Intangibles	Productivity increases by using electronic work packages and reducing the need to return to desktop kiosks for updates. With the electronic work packages, (1) employees have remote access to manuals such as the Gas Operations Manual for Gas Compression and local maintenance procedures to reference standard work, (2) it eliminates multiple physical hand-offs of work documents related to the work management process and (3) it frees up planners' time to focus on long-range and outage planning to adhere to goals such as the Periodic Factor metric and Gas Flow Deliverability goal for Gas Compression. Productivity can also be tracked and measured for further improvements. This level of tracking is not possible with the current process and information.										
Intangibles	Quality is improved and rework decreases when updates are performed right at the time and place of the work instead of afterwards. For Gas Compression, it (1) eliminates the manual process to update work scope and ensures access to the most up-to-date work order package, (2) allows crews to input SAP Notifications while at the jobsite for improved accuracy of data collected (1) provides the ability to collect asset condition data accurately at the jobsite to feed the data lake for asset health, and allows for the development of electronic code forms with built-in validation to improve quality of compliance data being collected.										
Intangibles	Safety is increased as the most current information is at the work site in the mobile device versus a printed procedure.										
Avoided Costs	The labor savings on time charging on a trougpad versus re-entering time later in office is 10 mins/day/employee savings from the 15 mins/employee per day it currently takes to enter time. Employees currently take 15mins per day to enter time. 50 Gas Compression employees would save: 15mins/day * 170hour a 230 work days a year x 50 employees = 2,365 hours avoided per year * \$61 Standard Labor Rate = \$140,720.90 Avoided O&M Costs										
Risk Mitigation	The project will mitigate the risk of work errors from using outdated procedures especially for performing Gas Compression code work inspections using electronic forms. Electronic forms will improve validation of required inspection data, thereby reducing the risk of MPSC audit findings and possible regulatory fines. It also reduces safety risk by having the ability to have jobsite access to Emergency Plans to meet corporate safety requirements.										
Avoided Costs	With this project there are avoided costs in Gas Compression from eliminating paper work package assembly. The time for 6 exempt planners is 2 days per month; 3 planners x 2 days x 8 hours = 128 hours per month. The avoided cost for exempt planners is calculated at 128 hours/month x \$40/hour x 12 months = \$57,792 per year. Their capital/O&M split is 25:75 which breaks down to avoiding \$18,432 in capital and \$55,296 in O&M. Six non-exempt admins spend 8 hours/month; 6 admins x 8 hours = 48 hours per month. The avoided cost for non-exempt admins is calculated at 48 hours/month x \$25/hour x 12 months = \$14,400 per year. Their capital/O&M split is 15:85 which breaks down to avoiding \$2,160 in capital and \$12,240 in O&M.										
Technology Capability	Work Management										

Corrosion Control Modernization		Report Pulled: 11/1/2024		Item ID: 12474						
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Strategic/Grow			Work Type	Project					
Alias	, Corrosion Control Modernization									
Description	This project will modernize the Corrosion Control measurement, documentation, and analysis process for Gas Transmission and Gas Distribution Corrosion Control. It will also automate the Corrosion Control process and eliminate manual data entry and paper from the process.									
Portfolio	Gas Delivery Systems > Gas Operations > IT Projects > IT Projects > * > *									
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-GAS					
WORK OBJECTIVES										
Problem Statement	The current gas pipeline corrosion control field data collection and monitoring process is antiquated and manually intensive. The existing process requires that technicians take readings from the corrosion control devices using a handheld DVM (Digital Voltmeter) and then record those readings on paper, followed by manual data entry into Inspection Manager. The results can then be further stored, processed and analyzed. This process is labor intensive and error prone, which could result in compliance issues, causes rework, and drives up labor costs.									
Objectives	This project creates value for the Company and its customers by: (1) modernizing the entire gas pipeline corrosion control field data collection and monitoring process; (2) eliminating the manual paper process of taking and recording measurements on corrosion control devices attached to gas pipelines; (3) automating the entire process from measurement through documentation and analysis; (4) providing an integrated solution that takes the measurements and records the results in one step; (5) implementing geographical location (latitude, longitude) mapping for each test point read to provide more efficient routing.									
Scope	The project scope includes: (1) purchasing hardware, connectivity, and software with related licenses needed to establish a modern electronic corrosion measurement and documentation system; (2) a data transfer to the new system from the existing system of record, Inspection Manager; and (3) training users in the use of the new system and deploy to all corrosion control technicians.									
Alternatives	Alternatives considered include: (1) continue with the current manual process. This option was not selected as it does not solve the issues associated with the paper-based manual process; (2) develop a Consumers Energy custom solution that would interface with a standard DVM and automate the current paper process using custom in house solution. This option was not selected as it would be far too costly and time consuming to develop in-house and a standard solution is available in the marketplace; and (3) purchase and implement a hybrid cloud-based COTS (Common Off The Shelf) hardware and software solution to provide an electronic means of data measurement and collection and then transfer that data to the existing GIS (Geographic Information System.) This option was selected as it meets the goal of automating the data collection and documentation process and eliminates the existing paper process.									
DATES (phase end)										
Initiation 1/2/2022	Project Plan & Scope Definition 9/30/2022 In-Service/Go-Live 5/1/2023		Final Engineering, Planning & Design 9/30/2022 Closeout 5/22/2023		Execution 12/2/2022					
FUNDING SUMMARY										
	2022	2023	2024	2025	2026	2027	2028	2029 +	Total	
Cap+COR	\$0.818	\$0.489	\$0.003	-	-	-	-	-	\$1.310	
O&M	\$0.017	\$0.018	-	\$0.044	\$0.044	\$0.044	\$0.044	-	\$0.212	
Total Cost of Ownership	\$0.835	\$0.507	\$0.003	\$0.044	\$0.044	\$0.044	\$0.044	-	\$1.522	
	2022	2023	2024	2025	2026	2027	2028	2029 +	Total	
Labor	\$0.025	\$0.101	-	-	-	-	-	-	\$0.126	
Outside Services	\$0.351	\$0.251	\$(0.148)	-	-	-	-	-	\$0.454	
Business Expense/Overheads	\$0.014	\$0.092	\$0.002	-	-	-	-	-	\$0.108	
Employee Benefits	-	-	-	-	-	-	-	-	-	
Materials	\$0.444	\$0.057	\$(0.047)	-	-	-	-	-	\$0.454	
Licenses, Permits & Fees	-	\$0.006	\$0.197	-	-	-	-	-	\$0.203	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost	\$0.835	\$0.507	\$0.003	-	-	-	-	-	\$1.344	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS										
	2022	2023	2024	2025	2026	2027	2028	2029 +	Total	
O&M	Reduction	-	-	\$(0.200)	\$(0.250)	\$(0.300)	\$(0.350)	\$(0.400)	-	\$(1.500)
	Initial	\$0.017	\$0.018	-	\$0.044	\$0.044	\$0.044	\$0.044	-	\$0.212
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.017	\$0.018	\$(0.200)	\$(0.206)	\$(0.256)	\$(0.306)	\$(0.356)	-	\$(1.288)
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.818	\$0.489	\$0.003	-	-	-	-	-	\$1.310
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.818	\$0.489	\$0.003	-	-	-	-	-	\$1.310
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)						-0.312				
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									
Intangibles	Ability to electronically access proof of repair documentation, as well as, track repair history.									
Technology Capability	Gas T&D, Generation									
Intangibles	Improved compliance through reduction in errors created by the manual process.									
Intangibles	Improved employee engagement by providing a modern paperless experience.									
Avoided Costs	Reducing costs by eliminating revisits and rework caused by errors in the manual data entry and recording process as well as removing manual process steps.									
Intangibles	Reducing errors introduced by manual data entry when technicians collect voltage readings in the field									
Intangibles	The new devices have the ability to provide a geographical location (latitude, longitude) for each test point read. Employees are currently relying on test point description (description inputted by field employees)to describe our asset location. With the geographical stamp, employees will increase the accuracy of our GIS Records and also allow for more effective routing for all work types.									
Avoided Costs	The new system will use Power Apps to create reports, eliminating the need for manually created reports.									

Customer Order Service Tracker			Report Pulled: 11/1/2024					Item ID: 9062			
EXECUTIVE SUMMARY											
BASIC INFORMATION											
Work Category		Strategic/Grow					Work Type				Project
Alias		, Service Tracker, Customer Order Service Tracker									
Description		Short cycle orders including gas emergencies and meter services account for many of the incoming customer inquiries to the contact centers. This project will implement a service order status tracker to provide transparency to customers and oversight to internal teams supporting utility service orders across Company service areas. The tracker will provide timely and accurate service order updates, creating a more robust customer experience for tracking service order status and location-based updates.									
Portfolio		Customer Services > Customer Interaction Channels > Digital > Digital > * > *									
Org		CX&T		Bus Unit			INFORMATION TECHNOLOGY		Dept		CX&T-IT-CUSTOMER EXP & OPS
WORK OBJECTIVES											
Problem Statement		Customers have limited visibility to when Company assigned crews will be on premise and what work will be completed. This is due to features missing within the Company's digital channels for accurate updates from dispatch, scheduling, and field crews. The lack of awareness drives calls into the call center, resulting in approximately 346,000 annual contact center calls related to short cycle requests. Additionally, this lack of visibility increases truck rolls due to dispatchers being unaware of crew locations and routes which can cause crews to be assigned when a local crew could have completed the work. This leads to overall customer dissatisfaction because of a lack of visibility to scheduled and ongoing short cycle work. Enabling a digital channel for communication regarding utility service orders will improve customer experience and reduce the waste of repetitive crew dispatching.									
Objectives		This project will add value to the Company and its customers by: (1) providing transparency for customers on the timing and location of the associated crew completing utility short cycle service orders, (2) reducing calls to contact centers by customers seeking clarification regarding arrival times through visibility to scheduling time-frames and providing notifications to customers when crews are en-route, (3) improving resource assignment by current location, which decreases wasted truck rolls through enabling location services for active crews, (4) increasing visibility into the service person(s) completing the order by enabling crews to connect with customers through digital channels, and (5) improving customer experience for short cycle service orders by implementing a channel of choice for Company interactions.									
Scope		The scope for the project includes: (1) modifying the customer self-service portal to include features that support utility service order tracking, including the location of crews en-route, (2) providing desktop and mobile capabilities, (3) enhancing the existing ServiceBench platform to allow real-time status updates that can be communicated to customers, (4) utilizing location-based services to update internal portal in real time, and (5) enabling text and email notifications to alert customers of service crews arrival times.									
Alternatives		Alternatives considered for this project include: (1) Deploy a mobile application to address utility service order tracking, (2) utilize a cloud hosted solution from a third-party, (3) modify the existing customer portal to enable customers and the Company to track utility service orders and crews. Options one and two were not selected as the cost associated with deployment would greatly outweigh the benefits with call reduction and improved customer experience. The third option was selected because it utilizes existing technologies, which reduces the implementation complexity and project cost and has faster value realization for the customer and the Company.									
DATES (phase end)											
Initiation		Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution			
1/10/2025		4/11/2025			6/13/2025			6/26/2026			
		In-Service/Go-Live			Closeout						
		8/28/2026			11/20/2026						
FUNDING SUMMARY											
		2024	2025	2026	2027	2028	2029	2030	2031 +	Total	
Cap+COR		-	\$2.413	\$1.609	-	-	-	-	-	\$4.022	
O&M		-	\$0.562	\$0.375	\$0.050	\$0.050	\$0.050	\$0.050	\$0.050	\$1.186	
Total Cost of Ownership		-	\$2.975	\$1.983	\$0.050	\$0.050	\$0.050	\$0.050	\$0.050	\$5.208	
		2024	2025	2026	2027	2028	2029	2030	2031 +	Total	
Labor		-	\$0.900	\$0.600	-	-	-	-	-	\$1.500	
Outside Services		-	\$1.200	\$0.800	\$0.050	\$0.050	\$0.050	\$0.050	\$0.050	\$2.250	
Business Expense/Overheads		-	\$0.875	\$0.583	-	-	-	-	-	\$1.458	
Employee Benefits		-	-	-	-	-	-	-	-	-	
Materials		-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees		-	-	-	-	-	-	-	-	-	
Other		-	-	-	-	-	-	-	-	-	
Total Project Cost		-	\$2.975	\$1.983	\$0.050	\$0.050	\$0.050	\$0.050	\$0.050	\$5.208	
VALUE & IMPACTS SUMMARY											
FINANCIAL IMPACTS											
		2024	2025	2026	2027	2028	2029	2030	2031 +	Total	
O&M		-	-	-	-	-	-	-	-	-	
Reduction		-	-	-	-	-	-	-	-	-	
Initial		-	\$0.562	\$0.375	\$0.050	\$0.050	\$0.050	\$0.050	\$0.050	\$1.186	
Incremental		-	-	-	-	-	-	-	-	-	
Net		-	\$0.562	\$0.375	\$0.050	\$0.050	\$0.050	\$0.050	\$0.050	\$1.186	
Cap+COR		-	-	-	-	-	-	-	-	-	
Reduction		-	-	-	-	-	-	-	-	-	
Initial		-	\$2.413	\$1.609	-	-	-	-	-	\$4.022	
Incremental		-	-	-	-	-	-	-	-	-	
Net		-	\$2.413	\$1.609	-	-	-	-	-	\$4.022	
Revenue		-	-	-	-	-	-	-	-	-	
Reduction		-	-	-	-	-	-	-	-	-	
Initial		-	-	-	-	-	-	-	-	-	
Incremental		-	-	-	-	-	-	-	-	-	
Net		-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)				-1.000							
Risk Tolerance											
Corporate Risk		Impact	Likelihood	Description							
OTHER VALUE											
Type		Description									
Technology Capability		Customer Mgmt									
Intangibles		Improve safety for both the Company's employees and customers by providing accurate estimated times of arrival, reducing the likelihood of threats of violence.									
Intangibles		Improved customer experience related to real time updates from service crews completing activities in their area. The crews will have the ability to provide accurate estimated times of arrival and detail what work is being completed via digital channels. Building trust between the Company and its customers regarding the work being completed correctly, the first time a crew arrives.									
Avoided Costs		Reduce Truck Rolls for appointments that weren't rescheduled in a timely manner and limiting truck rolls in locations where a crew can complete multiple jobs in a geographic location. Each avoided truck roll saves the company approximately \$450.									
Avoided Costs		Reduction in calls to validate arrival times of field crews based on more clarity and transparency regarding the service being completed. Currently 346,000 calls take place yearly regarding status of service orders. The project anticipates a 60% reduction over three years resulting in potential avoided costs of \$537,996 per year. (Avg cost per call \$7.63 [\$9.76/call internal & \$5.50/call H&H] * 69,000 calls reduced each year.)									
Intangibles		Reduction in Customer Complaints regarding service orders, delays in service, and maintenance visits. Last year, the company received 6 formal complaints and 11 informal complaints regarding non-emergency maintenance work.									

Customer Self-Service Online Work Scheduling				Report Pulled: 11/1/2024				Item ID: 9035				
EXECUTIVE SUMMARY												
BASIC INFORMATION												
Work Category	Strategic/Grow						Work Type	Project				
Alias	, Online Work Scheduling, Customer Self-Service Online Work Scheduling											
Description	The Online Work Scheduling project will implement online, self-service work order scheduling for new business requests enabling future work requests to be scheduled online by customers new business requests, rather than contacting the contact center.											
Portfolio	Customer Services > Customer Interaction Channels > Digital > Digital > * > *											
Org	CX&T			Bus Unit INFORMATION TECHNOLOGY				Dept CX&T-IT-CUSTOMER EXP & OPS				
WORK OBJECTIVES												
Problem Statement	Currently customers must call the contact center to schedule work and obtain updates given a lack of online self-service capabilities. To stay informed, customers are required to contact the contact center, and often requires multiple calls per work request. In addition, once work is completed customers do not receive confirmation that the work has been completed or what work was completed, which may also result in additional inbound customer calls. These inefficiencies require multiple inbound calls, which often results in customer dissatisfaction.											
Objectives	The Company and its customer will see value through this project by: (1) implementing self-service capabilities for customers to submit new business requests, (2) reducing calls into contact centers, (3) improving the digital experience within the Company's customer portal, (4) improving quality of utility service work through timely customer surveys based on work completed, (5) improving work efficiency by providing routine updates online resulting in manual activity (6) improving overall customer experience as customers can utilize channel of choice, and (7) enabling future initiatives supporting customer site work by developing the technical and business process foundation for other initiatives to expand upon.											
Scope	The project scope includes: (1) creating the ability for customer self-service online for new business requests, (2) enabling channel of choice options for scheduled work order confirmation notifications, and (3) automating scheduling of work orders in SAP and other back-end systems.											
Alternatives	Alternatives considered include: (1) developing a form on the Company's web portal for customers to complete and send to a monitored email box, (2) purchasing a third party cloud solution to host a portal for customers to schedule work orders, (3) displaying a map of service areas with a number for customers to call their local dispatch area, and (4) enhancing the current customer self-service portal to include new business requests. The first and third alternatives were not selected because they will degrade the customer experience and require additional manual process steps and work, introducing waste to manage additional processes to schedule the work order. The second alternative was not selected due to the high cost of integrating a new solution with the existing customer platform and back-end systems and increases ongoing maintenance and support costs. The fourth alternative was selected because it improves customer experience through self-service, utilizes the existing customer self-service portal, increases process efficiency for scheduling work orders, and minimizes increases for ongoing maintenance and support costs.											
DATES (phase end)												
Initiation 1/10/2023	Project Plan & Scope Definition 2/28/2023 In-Service/Go-Live 8/15/2023				Final Engineering, Planning & Design 3/28/2023 Closout 8/22/2023				Execution 5/25/2023			
FUNDING SUMMARY												
		<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028 +</u>	<u>Total</u>		
Cap+COR		\$0.681	\$1.145	\$0.020	-	-	-	-	-	\$1.846		
O&M		\$0.178	\$0.102	\$0.000	-	\$0.020	\$0.020	-	-	\$0.320		
Total Cost of Ownership		\$0.859	\$1.248	\$0.020	-	\$0.020	\$0.020	-	-	\$2.166		
		<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028 +</u>	<u>Total</u>		
Labor		\$0.267	\$0.122	-	-	-	-	-	-	\$0.389		
Outside Services		\$0.555	\$1.032	-	-	-	-	-	-	\$1.586		
Business Expense/Overheads		\$0.036	\$0.052	-	-	-	-	-	-	\$0.088		
Employee Benefits		-	-	-	-	-	-	-	-	-		
Materials		-	-	-	-	-	-	-	-	-		
Licenses, Permits & Fees		\$0.001	\$0.042	\$0.020	-	-	-	-	-	\$0.062		
Other		-	-	-	-	-	-	-	-	-		
Total Project Cost		\$0.859	\$1.248	\$0.020	-	-	-	-	-	\$2.126		
VALUE & IMPACTS SUMMARY												
FINANCIAL IMPACTS												
		<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028 +</u>	<u>Total</u>		
O&M	Reduction	-	-	-	-	-	-	-	-	-		
	Initial	\$0.178	\$0.102	\$0.000	-	\$0.020	\$0.020	-	-	\$0.320		
	Incremental	-	-	-	-	-	-	-	-	-		
	Net	\$0.178	\$0.102	\$0.000	-	\$0.020	\$0.020	-	-	\$0.320		
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-		
	Initial	\$0.681	\$1.145	\$0.020	-	-	-	-	-	\$1.846		
	Incremental	-	-	-	-	-	-	-	-	-		
	Net	\$0.681	\$1.145	\$0.020	-	-	-	-	-	\$1.846		
Revenue	Reduction	-	-	-	-	-	-	-	-	-		
	Initial	-	-	-	-	-	-	-	-	-		
	Incremental	-	-	-	-	-	-	-	-	-		
	Net	-	-	-	-	-	-	-	-	-		
B/C Ratio (Overall)		-1.000										
Risk Tolerance												
Corporate Risk	Impact	Likelihood	Description									
OTHER VALUE												
Type	Description											
Technology Capability	Customer Management											

Data & Analytics Platform Rationalization		Report Pulled: 11/1/2024		Item ID: 13961					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow			Work Type	Project				
Alias	Data & Analytics Platform Rationalization								
Description	This project will optimize the Data & Analytics system landscape by creating connections, migrating data into Data Lake 2.0 (DL 2.0), and building visualizations from the data in DL 2.0. Following the enablement of DL 2.0, retirement of the IT Data & Analytics legacy systems including SingleStore Data Lake (SSDL), SAP Business Warehouse (BW), SAP Business Objects (BOBJ), Native HANA, the BW Portal, and SAP Business Objects Data Services (BODS) creates value by reducing the total cost of ownership associated with maintaining and supporting legacy systems.								
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-APPLICATION PLATFORMS & SER				
WORK OBJECTIVES									
Problem Statement	The IT Data & Analytics legacy systems (SSDL, SAP BW, SAP BOBJ, Native HANA, the BW Portal, and BODS) are outdated, inefficient, and becoming duplicative in nature with the introduction of DL 2.0. If these legacy systems are not retired, they will continue to cost the Company money as major investments are needed to maintain and support them.								
Objectives	This platform rationalization project creates value for the Company and its customers by reducing the total cost of ownership associated with maintaining and supporting legacy systems including licensing fees, maintenance costs, infrastructure, and support resources.								
Scope	The project scope includes: (1) the assessment of the existing Data & Analytics platforms including SSDL, SAP BW, SAP BOBJ, Native HANA, the BW Portal, and BODS; (2) inventory of data and reports still being used by stakeholders; (3) determination of migration strategy; (4) data migration to the Azure Data Lake; (5) report migration to Power BI; (6) organization change management; and (7) the retirement/decommissioning of the legacy platforms and applications.								
Alternatives	Alternatives considered: (1) upgrade legacy systems in place (on-premise). This alternative was not selected because this is costly and misaligned with the Company's cloud strategy. (2) Lift and shift these on-premise systems to the cloud through the Hybrid Cloud Transformation Program. This alternative was not selected because it would duplicate the work being done as part of the DL 2.0 project and would not provide the same efficiencies that DL 2.0 introduces. The alternative to migrate all data sources to DL 2.0 and retire legacy systems was selected because of the expected cost benefits and technology capabilities it provides to the Company over a timeline that allows the Company to realize the value of existing investments.								
DATES (phase end)									
Initiation 3/3/2025	Project Plan & Scope Definition 4/28/2025 In-Service/Go-Live 8/14/2026		Final Engineering, Planning & Design 5/30/2025 Closeout 9/18/2026		Execution 7/31/2026				
FUNDING SUMMARY									
	2025	2026	2027	2028	2029	2030	2031	2032 +	Total
Cap+COR	\$6.638	\$3.364	-	-	-	-	-	-	\$10.002
O&M	\$1.308	\$0.853	-	-	-	-	-	-	\$2.161
Total Cost of Ownership	\$7.946	\$4.217	-	-	-	-	-	-	\$12.163
	2025	2026	2027	2028	2029	2030	2031	2032 +	Total
Labor	\$0.667	\$0.333	-	-	-	-	-	-	\$1.000
Outside Services	\$6.670	\$3.330	-	-	-	-	-	-	\$10.000
Business Expense/Overheads	\$0.309	\$0.154	-	-	-	-	-	-	\$0.463
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	\$0.100	\$0.100	-	-	-	-	-	-	\$0.200
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	\$7.746	\$3.917	-	-	-	-	-	-	\$11.663
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2025	2026	2027	2028	2029	2030	2031	2032 +	Total
O&M									
Reduction	\$(0.610)	\$(3.028)	\$(2.427)	\$(2.436)	\$(2.445)	\$(2.454)	-	-	\$(13.399)
Initial	\$1.308	\$0.853	-	-	-	-	-	-	\$2.161
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.698	\$(2.175)	\$(2.427)	\$(2.436)	\$(2.445)	\$(2.454)	-	-	\$(11.239)
Cap+COR									
Reduction	\$(0.300)	-	\$(2.000)	\$(2.000)	-	-	-	-	\$(4.300)
Initial	\$6.638	\$3.364	-	-	-	-	-	-	\$10.002
Incremental	-	-	-	-	-	-	-	-	-
Net	\$6.338	\$3.364	\$(2.000)	\$(2.000)	-	-	-	-	\$5.702
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		0.151							
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
Attraction and Retention of High Performing	Medium	Medium	By retiring legacy systems and shifting to industry leading technologies (Microsoft Azure), the Company can attract and retain talent.						
Inaccuracy of Financial and Operational Rep	Medium	High	Due to limitations with legacy systems, system outages will continue to happen regularly which impact reporting metrics for many areas across the organization including potential impacts to month end close and Operations operating review metrics. As of May 2024, there have been six SAP BW/SAP BOBJ outages that impacted critical reporting.						
OTHER VALUE									
Type	Description								
Technology Capability	Investment Planning and Project Mgmt; Investment Analysis								

Digital-Cloud Data and Analytics Platform				Report Pulled: 11/1/2024				Item ID: 13443											
EXECUTIVE SUMMARY																			
BASIC INFORMATION																			
Work Category		Strategic/Grow						Work Type		Project									
Alias		, Accelerate Data Strategy, Digital-Cloud Data and Analytics Platform																	
Description		This project will provide Artificial Intelligence (AI) and analytics in the cloud across the business to uncover new paths to value, faster, allowing the organization to make better decisions and enable delivery outcomes for the NGDP, Electric Grid Integration, customer programs, and other business needs. The project will additionally establish data governance roles and responsibilities, processes, and implement tools to support best practices across the enterprise.																	
Portfolio		IT Services > Applications > Common Delivery Systems > * > * > *																	
Org		CX&T				Bus Unit		INFORMATION TECHNOLOGY		Dept CX&T-IT-APPLICATION PLATFORMS & SER									
WORK OBJECTIVES																			
Problem Statement		Consumers Energy faces several challenges in the ongoing data modernization journey, which include: (1) legacy data platform operations; (2) long lead times for data exploration and identification of data assets; (3) lack of data ownership and quality, (4) limited data governance best practices across data ownership, access control & security; and (5) heavy dependence on IT for Business Intelligence reporting and analytics.																	
Objectives		The project will add value by providing data to support business needs by: (1) optimizing data platform operations costs with workflow-based platform infrastructure deployment using pre-built modules and templates; (2) reducing data operations build complexity and data engineering costs through automation; (3) improving data quality and governance that leads to reduced costs of data provisioning, data duplication, and improved data accuracy; (4) streamlining data access requests, management, and governance to reduce risks and support efficiency; and (5) increasing the speed to deliver new data and data capabilities, improving productivity, and improving access to data. This project is an enabler for business areas to use these capabilities to build analytic models for asset and labor optimization that is anticipated to more than offset the project costs.																	
Scope		The project scope includes: (1) developing and modernizing the analytics platform in the cloud to allow Consumers Energy to implement new use cases leveraging simplified infrastructure configurations and automated deployment processes; (2) build and deploy data management capabilities, controls, catalog, assets, and data flow; (3) developing data ordering workflows and data access management controls; (4) prioritization and new datasets; (5) simplifying infrastructure configuration; (6) automating deployment processes; (7) enabling data governance tools and processes.																	
Alternatives		Alternatives considered include: (1) Address current pain points in existing on-premise and cloud analytics platforms. This alternative was not selected because the existing platforms requires new investment in licensing and infrastructure, delivery for new capabilities cannot keep pace with demand, still requires investment to address legacy system technical obsolescence, and business areas would not realize asset and labor optimizations. (2) Continue to utilize existing on-premise and cloud analytics platforms. This alternative was not selected because it would not address the current pain points in the existing on-premise and cloud analytics platforms, limiting the Company's ability to have required data and analytics capabilities to improve processes and realize asset and labor optimizations. (3) Implement a new data and analytics platform in the cloud. This alternative was selected because it provides improved analytics capabilities, faster access to data that is critical to improve business process, and reduces technical obsolescence.																	
DATES (phase end)																			
Initiation		Project Plan & Scope Definition				Final Engineering, Planning & Design				Execution									
5/1/2023		5/1/2023				6/5/2023				7/31/2023									
		In-Service/Go-Live				Closeout													
		7/31/2023				12/6/2024													
FUNDING SUMMARY																			
		2023		2024		2025		2026		2027		2028		2029		2030 +		Total	
Cap+COR		\$3.342		\$8.921														\$12.263	
O&M		\$0.197		\$1.233		\$1.588		\$1.588		\$1.588								\$6.194	
Total Cost of Ownership		\$3.539		\$10.155		\$1.588		\$1.588		\$1.588								\$18.457	
		2023		2024		2025		2026		2027		2028		2029		2030 +		Total	
Labor		\$0.726		\$1.668														\$2.393	
Outside Services		\$1.912		\$7.133														\$9.045	
Business Expense/Overheads		\$0.253		\$0.363		\$0.084		\$0.084		\$0.084								\$0.869	
Employee Benefits																			
Materials																			
Licenses, Permits & Fees		\$0.648		\$0.991														\$1.639	
Other																			
Total Project Cost		\$3.539		\$10.155		\$0.084		\$0.084		\$0.084								\$13.947	
VALUE & IMPACTS SUMMARY																			
FINANCIAL IMPACTS																			
		2023		2024		2025		2026		2027		2028		2029		2030 +		Total	
O&M		Reduction																	
		Initial		\$0.197		\$1.233		\$1.588		\$1.588								\$6.194	
		Incremental																	
		Net		\$0.197		\$1.233		\$1.588		\$1.588								\$6.194	
Cap+COR		Reduction																	
		Initial		\$3.342		\$8.921												\$12.263	
		Incremental																	
		Net		\$3.342		\$8.921												\$12.263	
Revenue		Reduction																	
		Initial																	
		Incremental																	
		Net																	
				B/C Ratio (Overall)				-1.000											
Risk Tolerance																			
Corporate Risk		Impact		Likelihood		Description													
OTHER VALUE																			
Type		Description																	
Avoided Costs		Automated deployments for infrastructure decreases build time and increases time spent on higher value work for the IT platform team. This will also decrease future project implementation hours and associated labor costs. Avoided benefits will be finalized following phase 1.																	
Intangibles		Enhance Workplace Productivity and Collaboration: Improve Analytics Efficacy and time to insights with data catalog and data democratization.																	
Risk Mitigation		Reduce Data compliance Risk and Exposure: Reduced exposure to data loss, compliance risk, or potential for data platform interruption with integrated data catalog, controls and governance.																	

Digital-Data and Analytics in the Cloud			Report Pulled: 11/1/2024			Item ID: 8804				
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category		Strategic/Grow					Work Type			Project
Alias		, Data and Analytics in the Cloud, Digital - Data and Analytics in the Cloud, Digital-Data and Analytics in the Cloud								
Description		This project will extend the current data and analytics environment into a cloud environment, which will enable data and analytics at-scale and enable the delivery of outcomes for the Natural Gas Delivery Plan, Electric Grid Integration, customer programs, and other business needs.								
Portfolio		IT Services > Applications > Common Delivery Systems > * > * > *								
Org		CX&T			Bus Unit		INFORMATION TECHNOLOGY		Dept	CX&T-IT-PROD TRANSF, ARCH & QUAL
WORK OBJECTIVES										
Problem Statement		The Company currently has an on-premise data and analytics platform, Data Lake, that houses multiple data attributes ranging from customer, grid, and operations. As the Company requires more predictive and prescriptive analytical use case outcomes, the current environment is insufficient to handle the data analytics at-scale for multiple use cases. Also, the current solution lacks the libraries of advanced Machine Learning (ML), AI tools, and Industry-Standard Big Data Ingestion tools, which are standard offerings as part of Cloud environments, such as Amazon Web Services (AWS), Azure or Google Cloud Platforms.								
Objectives		The project will add value by: (1) establishing the technical foundation necessary to scale the platform, which enables data analytics at-scale for the identified use cases; (2) establishing ML workspaces in the cloud that enable predictive and prescriptive analytics at-scale for the identified use cases; (3) gain performance efficiencies for analytics and data capability execution in cloud, reducing wait time and lag for analytics teams; (4) enabling pay-per-use, which enables future cost optimization for the data analytics platform; and (5) empowering faster prototyping, testing, and deployment of analytics solutions.								
Scope		The project scope includes: (1) introducing new data sets, including historical data, to enable Data Analytics use cases in the cloud; (2) implementing cloud-based Machine Learning (ML) and Artificial Intelligence (AI) capabilities; (3) integrating the agile DevOps toolset with the cloud-based data and analytics platform to enable future automation; (4) implementing capabilities to enable capacity-based pay-per-use; and (5) defining and implementing cloud-based data and analytics platform infrastructure that will enable future cloud migration and maintenance.								
Alternatives		The alternative considered to a cloud solution is to expand the on-premise infrastructure and purchase multiple tools to solve individual capability gaps. The Company did not choose this alternative because it is more costly than cloud due to higher infrastructure costs and a larger workforce required for implementation.								
DATES (phase end)										
Initiation		Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution		
7/1/2022		8/1/2022			11/1/2022			1/4/2023		
		In-Service/Go-Live			Closeout					
		10/31/2023			12/30/2023					
FUNDING SUMMARY										
		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
Cap+COR		-	\$0.502	-	-	-	-	-	-	\$0.502
O&M		\$0.043	\$0.125	-	-	-	-	-	-	\$0.169
Total Cost of Ownership		\$0.043	\$0.627	-	-	-	-	-	-	\$0.670
		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
Labor		\$0.017	\$0.220	-	-	-	-	-	-	\$0.238
Outside Services		\$0.023	\$0.297	-	-	-	-	-	-	\$0.320
Business Expense/Overheads		\$0.003	\$0.095	-	-	-	-	-	-	\$0.098
Employee Benefits		-	-	-	-	-	-	-	-	-
Materials		-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees		-	\$0.015	-	-	-	-	-	-	\$0.015
Other		-	-	-	-	-	-	-	-	-
Total Project Cost		\$0.043	\$0.627	-	-	-	-	-	-	\$0.670
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
O&M		Reduction	-	-	-	-	-	-	-	-
		Initial	\$0.043	\$0.125	-	-	-	-	-	\$0.169
		Incremental	-	-	-	-	-	-	-	-
		Net	\$0.043	\$0.125	-	-	-	-	-	\$0.169
Cap+COR		Reduction	-	-	-	-	-	-	-	-
		Initial	-	\$0.502	-	-	-	-	-	\$0.502
		Incremental	-	-	-	-	-	-	-	-
		Net	-	\$0.502	-	-	-	-	-	\$0.502
Revenue		Reduction	-	-	-	-	-	-	-	-
		Initial	-	-	-	-	-	-	-	-
		Incremental	-	-	-	-	-	-	-	-
		Net	-	-	-	-	-	-	-	-
		B/C Ratio (Overall) -1.000								
Risk Tolerance										
Corporate Risk		Impact	Likelihood	Description						
OTHER VALUE										
Type		Description								
Technology Capability		Administrative & General (A&G) Support								
Risk Mitigation		Foundational analytics capabilities enable the outcome of the Natural Gas delivery plan, Electric Grid Integration plan, and the Retail plan. If the Company is unable to quickly deliver foundational analytics capabilities it risks the outcomes of the strategic plans.								
Intangibles		Implementation of the Data and Analytics in the Cloud will allow for routine upgrades and seamless integration of new analytic tools and libraries available within the cloud. This allows for quicker delivery of analytics for projects.								
Intangibles		Implementation of the Data and Analytics in the Cloud will allow for the ability to quickly scale up compute power needed to run advanced analytics. Today, average time to purchase and expand on-premise hardware is between 3-6 months. That is 3-6 months that we are missing out on business value.								

Digital-Hybrid Cloud and Data Center Migration				Report Pulled: 11/1/2024				Item ID: 10502						
EXECUTIVE SUMMARY														
BASIC INFORMATION														
Work Category		Strategic/Grow						Work Type		Project				
Alias		, Hybrid Cloud and Data Center Migration, Digital - Hybrid Cloud and Data Center Migration, Digital-Hybrid Cloud and Data Center Migration												
Description		This project will optimize data center assets and asset replacement project purchases by migrating or retiring applications out of existing Company and co-location data centers into cloud services, reducing operational costs for running IT services and leveraging increased cloud capabilities to improve the efficiency, quality, and speed-to-market of customer-facing and internal IT services.												
Portfolio		IT Services > Infrastructure > Data Center - Enterprise Computing > * > * > *												
Org		CX&T			Bus Unit			INFORMATION TECHNOLOGY			Dept		CX&T-IT-INFRASTRUCTURE PLATFORMS &	
WORK OBJECTIVES														
Problem Statement		The technology currently deployed in the Company's data centers meets many customers' needs today. However, the pace of digital transformation is increasing rapidly, and requirements for applications are evolving faster than the technology in the Company's data centers can respond in a cost-effective manner. These data center constraints lead to longer implementation times, missing capabilities, or reduced functionality in the applications that the Company can deploy.												
Objectives		This project will create value by ensuring the Company's technology requirements are met through a comprehensive and cost-effective combination of data centers and public cloud services. Specifically, by migrating applications to cloud services, the project will: (1) reduce capacity, hardware maintenance, and security device costs at the co-location data center; (2) reduce hardware maintenance and security device costs at the production data center; (3) enable the ability to scale infrastructure quickly up or down without costly up-front hardware purchases; (4) reduce application risk through cost-effective, scalable infrastructure redundancy and availability; (5) reduce ongoing server and storage asset replacement costs; (6) reduce ongoing networking equipment replacement costs; (7) reduce operational support costs; and (8) enable the use of a vast array of cloud services to support Company applications.												
Scope		The project scope includes: (1) promoting the robust main co-location data center to become the primary data center for on-premise IT services; (2) demoting the Company's production data center to the disaster recovery data center for on-premise IT services; (3) analyzing applications for migration to cloud or retirement; (4) migrating applications from on-premise to cloud; (5) transforming applications to use cost-effective cloud services; (6) altering network architecture and deploying base infrastructure to allow each location (on-premise or in cloud) to function independently; (7) deploying cloud and on-premise cost management tooling and processes; (8) simplifying and optimizing backup and disaster recovery resources and processes using cloud services; (9) implementing additional automation for application deployment and management; (10) changing the operations model for support of cloud-based applications; (11) educating and increasing the skills of IT and other employees in leveraging public cloud services; and (12) transforming IT to become the broker of cloud services for the Company.												
Alternatives		Alternatives considered included: (1) migrating to public cloud services faster. This alternative was not chosen because the Company's ability to absorb new technologies coupled with the investments the Company has already made in data center equipment would prevent a faster move from being efficient and effective, introducing additional financial risk; (2) migrating to public cloud services slower or not at all. This alternative was not selected because delaying public cloud services and capabilities coupled with requiring an extension of the life of existing data center equipment creates increased financial and operational risk; and (3) contracting with an outside vendor to provide cloud services to run applications for the Company. This alternative was not selected because industry information shows the option is not yet cost effective or not providing a maturity level that the Company would be able to easily consume with limited in-house experience and expertise in public cloud. The alternative to migrate to a hybrid cloud and data center model was selected because of the expected cost benefits and technology capabilities it provides to the Company over a timeline that allows the Company to realize the value of existing investments.												
DATES (phase end)														
Initiation		Project Plan & Scope Definition				Final Engineering, Planning & Design			Execution					
1/1/2023		4/15/2023				8/15/2023			10/1/2025					
		In-Service/Go-Live				Closeout								
		12/1/2025				12/15/2025								
FUNDING SUMMARY														
		2022	2023	2024	2025	2026	2027	2028	2029 +	Total				
Cap+COR		-	\$2.779	\$2.321	\$1.776	-	-	-	-	\$6.876				
O&M		-	\$0.529	\$0.728	\$10.910	\$10.188	\$10.450	\$9.620	\$20.082	\$62.507				
Total Cost of Ownership		-	\$3.308	\$3.049	\$12.686	\$10.188	\$10.450	\$9.620	\$20.082	\$69.383				
		2022	2023	2024	2025	2026	2027	2028	2029 +	Total				
Labor		-	\$0.372	\$0.949	\$1.510	-	-	-	-	\$2.831				
Outside Services		-	\$1.062	\$1.692	-	-	-	-	-	\$2.754				
Business Expense/Overheads		-	\$0.157	\$0.241	\$0.667	-	-	-	-	\$1.065				
Employee Benefits		-	-	-	-	-	-	-	-	-				
Materials		-	\$0.379	\$0.136	-	-	-	-	-	\$0.242				
Licenses, Permits & Fees		-	\$1.339	\$0.303	\$2.030	\$1.100	\$1.100	-	-	\$5.872				
Other		-	-	-	-	-	-	-	-	-				
Total Project Cost		-	\$3.308	\$3.049	\$4.206	\$1.100	\$1.100	-	-	\$12.764				
VALUE & IMPACTS SUMMARY														
FINANCIAL IMPACTS														
		2022	2023	2024	2025	2026	2027	2028	2029 +	Total				
O&M	Reduction	-	\$(0.623)	\$(1.382)	\$(4.223)	\$(6.008)	\$(6.188)	\$(6.374)	\$(12.068)	\$(36.866)				
	Initial	-	\$0.529	\$0.728	\$10.910	\$10.188	\$10.450	\$9.620	\$20.082	\$62.507				
	Incremental	-	-	-	-	-	-	-	-	-				
	Net	-	\$(0.094)	\$(0.654)	\$6.686	\$4.180	\$4.262	\$3.246	\$8.014	\$25.640				
Cap+COR	Reduction	-	\$(5.624)	\$(2.677)	\$(3.155)	\$(5.820)	\$(5.995)	\$(4.175)	\$(12.910)	\$(40.356)				
	Initial	-	\$2.779	\$2.321	\$1.776	-	-	-	-	\$6.876				
	Incremental	-	-	-	-	-	-	-	-	-				
	Net	-	\$(2.845)	\$(0.356)	\$(1.379)	\$(5.820)	\$(5.995)	\$(4.175)	\$(12.910)	\$(33.479)				
Revenue	Reduction	-	-	-	-	-	-	-	-	-				
	Initial	-	-	-	-	-	-	-	-	-				
	Incremental	-	-	-	-	-	-	-	-	-				
	Net	-	-	-	-	-	-	-	-	-				
		B/C Ratio (Overall)				0.172								
Risk Tolerance														
Corporate Risk		Impact	Likelihood	Description										
OTHER VALUE														
Type		Description												
Technology Capability		Administrative and General Support												
Risk Mitigation		Consumption of public cloud services offers infrastructure redundancy and availability at scale that cannot be duplicated in the Company's data centers, reducing the risk of running applications.												
Intangibles		This project makes consumption of all types of public cloud resources possible to provide IT services in support of all business processes, enabling technology capabilities for Administrative and General Support.												
Avoided Costs		With applications running in public cloud, the Company can expand and contract the consumption of IT services at will as appropriate versus purchasing hardware to expand in quantity and having no simple ability to contract.												

Energy Assistance Enhancements and Maintenance Annual U Report Pulled: 11/1/2024										Item ID: 6683
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Comply - Interval					Work Type	Project			
Alias	CARE 5.0, Consumers Affordable Resource for Energy (CARE) Annual Updates, Energy Assistance Enhancements and Maintenance Annual Updates									
Description	The Energy Assistance Enhancements and Maintenance Annual Updates project, formerly known as Consumers Affordable Resource for Energy (CARE) project, will implement software changes to offer energy assistance to low-income customers and streamline the process for the assistance agencies who use the assistance portal. This is accomplished through improved user interfaces and updates to SAP to process various requests. Upcoming modifications will be identified following an ongoing and annual review of requests, that includes criteria from the Department of Health and Human Services (DHHS) and Michigan Public Service Commission (MPSC) to prioritize the list of changes.									
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *									
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY			Dept	CX&T-IT-CUSTOMER EXP & OPS			
WORK OBJECTIVES										
Problem Statement	Each grant year, DHHS and MPSC stipulate the criteria required for customers to enroll in the CARE program, how the Company and agencies will manage the enrollment process and track active CARE customers, and how they will administer the Michigan Energy Assistance Program (MEAP) benefits through bill credits and arrears forgiveness. The criteria changes significantly each year; therefore, the Energy Assistance Enhancement and Maintenance Annual Updates application requires modifications to meet the new requirements. If the regulatory requirements are not fulfilled, the Company is at risk of losing state Low Income Energy Assistance Fund (LIEAF) funds to assist low-income customers with paying their energy bills, thereby increasing the customers risk of shutoff for non-payment. In addition, our energy assistance programs function within all software platforms in the company which consistently need enhancements and updates.									
Objectives	The project will provide the following value: (1) complete modifications to internal SAP application and Agency Portal to receive LIEAF funding, which can be used to provide customers the bill credits and arrears forgiveness; (2) improve the data within the assistance agencies portal, thereby making it easier to assist customers in need of LIEAF funding; and (3) complete modifications to customer facing platforms.									
Scope	The project scope includes: (1) updating the enrollment and status process; (2) allowing for flat monthly bills; (3) improving reporting; (4) updating the arrears forgiveness plan; (5) satisfying additional regulatory requirements for the annual grant rule changes required by the Department of Health and Human Services and Michigan Public Service Commission; (6) updating CARE dunning process; and (7) updating the assistance portal (CE PASS) functionality to enhance Agency Self-Service.									
Alternatives	Alternatives considered include: (1) continue with current process. This alternative was not chosen because it would lead to loss of grant funding, thus decreasing or eliminating energy assistance dollars for customers; (2) transfer administration of Energy Assistance Programs to a third party organization. This alternative was not selected because it would remove ownership and visibility into the health of the program while increasing administrative costs; and (3) make annual updates to the application, which will allow agencies to easily enroll customers on assistance programs and allow placement of holds to stop or prolong credit activity until assistance decisions are granted. This option was selected since it provides long-term proactive energy assistance to customers and prevents loss of grant funds. Changes are required to internal systems such as SAP, a large internal system that supports broad areas of the business, and the Agency Portal, an internally developed web application, therefore a single cloud or third-party alternative is not viable. Additionally, retiring the existing Agency Portal for a new application would increase costs beyond that of the routine upgrades.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution			
	In-Service/Go-Live			Closeout						
FUNDING SUMMARY										
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Cap+COR										
O&M	\$0.222	\$0.349	\$0.333	\$0.333	\$0.333	\$0.333	\$0.333	-	\$2.234	
Total Cost of Ownership	\$0.222	\$0.349	\$0.333	\$0.333	\$0.333	\$0.333	\$0.333	-	\$2.234	
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Labor	\$0.109	\$0.233	\$0.284	\$0.284	\$0.284	\$0.284	\$0.284	-	\$1.763	
Outside Services	\$0.101	\$0.108	\$0.026	\$0.026	\$0.026	\$0.026	\$0.026	-	\$0.341	
Business Expense/Overheads	\$0.013	\$0.008	\$0.022	\$0.022	\$0.022	\$0.022	\$0.022	-	\$0.130	
Employee Benefits	-	-	-	-	-	-	-	-	-	
Materials	-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost (Annual)	\$0.222	\$0.349	\$0.333	\$0.333	\$0.333	\$0.333	\$0.333	-	\$2.234	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS										
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
O&M										
Reduction	\$0.222	\$0.349	\$0.333	\$0.333	\$0.333	\$0.333	\$0.333	-	\$2.234	
Initial	-	-	-	-	-	-	-	-	-	
Incremental	-	-	-	-	-	-	-	-	-	
Net	\$0.222	\$0.349	\$0.333	\$0.333	\$0.333	\$0.333	\$0.333	-	\$2.234	
Cap+COR										
Reduction	-	-	-	-	-	-	-	-	-	
Initial	-	-	-	-	-	-	-	-	-	
Incremental	-	-	-	-	-	-	-	-	-	
Net	-	-	-	-	-	-	-	-	-	
Revenue										
Reduction	-	-	-	-	-	-	-	-	-	
Initial	-	-	-	-	-	-	-	-	-	
Incremental	-	-	-	-	-	-	-	-	-	
Net	-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)										-1.000
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									
Avoided Costs	As a result of our compliance with CARE requirements, we have access to MEAP funds that help to pay down low-income customer's arrears, therefore preventing those from being written off. This year, we are expecting to enroll 9,350 customers with an average arrears of \$285, thus potentially avoiding \$2.6M in bad debt write-offs.									
Risk Mitigation	As a result of our compliance with CE PASS requirements, Department of Health and Human Service and other agencies would not be able to assist our customers. This could result in \$60-\$70 million dollars not able to be funded to the company.									
Technology Capability	Customer Management - As a result of this project, we will better be able to manage our customers who otherwise would fall behind on bills.									

Enhancements - Customer Experience and Operations- Cap Report Pulled: 11/1/2024										Item ID: 8776
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Maintain - Interval							Work Type	Project	
Alias	, Enhancements - Customer Experience and Operations- O&M, Enhancements - Customer Experience and Operations- Cap									
Description	The Enhancements – Customer Experience – Operations project provides funding for small changes and improvements to existing software to address requests needed due to changing business requirements.									
Portfolio	IT Services > Applications > Customer Services > * > * > *									
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY				Dept	CX&T-IT-CUSTOMER EXP & OPS		
WORK OBJECTIVES										
Problem Statement	As business processes improve and change, new requirements surface requiring smaller effort software application changes. These software enhancements are neither projects nor operational work but require funding for resources. The annual budget cycle should ensure funding is provided for software enhancement small work efforts to ensure we are leveraging the value of existing IT investments to support business processes.									
Objectives	Requests for this funding are governed by a cross-functional board of representatives from each area which meets monthly to evaluate and prioritize the work. The board assesses requests for value using benefits that are categorized into hard cost savings, cost avoidance, safety, achieving corporate goals, and mitigating risk. Included in the implementation are small changes and functionality improvements to existing software application investments for Customer Experience and Operations.									
Scope	The enhancement requests are fulfilled to provide functionality for areas such as dunning, customer billing, programs for low income customers (i.e. Winter Protection Program, Special Protection Program), Company website, contact center, energy efficiency, and rates.									
Alternatives	Historically, specific budget was not allocated for enhancements work requiring efforts to identify funding for each request. As part of our review process the alternative considered was to not provide funding for enhancements. However, this limits our ability to make software changes to support process improvements, regulatory changes, and to meet legally required system changes.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution			
	In-Service/Go-Live			Closeout						
FUNDING SUMMARY										
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Cap+COR	\$0.799	\$0.517	-	-	-	-	-	-	\$1.315	
O&M	\$0.076	\$0.024	-	-	-	-	-	-	\$0.100	
Total Cost of Ownership	\$0.875	\$0.541	-	-	-	-	-	-	\$1.416	
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Labor	\$0.309	\$0.279	-	-	-	-	-	-	\$0.588	
Outside Services	\$0.332	\$0.209	-	-	-	-	-	-	\$0.541	
Business Expense/Overheads	\$0.195	\$0.053	-	-	-	-	-	-	\$0.247	
Employee Benefits	-	-	-	-	-	-	-	-	-	
Materials	\$0.027	-	-	-	-	-	-	-	\$0.027	
Licenses, Permits & Fees	\$0.013	-	-	-	-	-	-	-	\$0.013	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost (Annual)	\$0.875	\$0.541	-	-	-	-	-	-	\$1.416	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS										
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
O&M										
Reduction	-	-	-	-	-	-	-	-	-	
Initial	\$0.076	\$0.024	-	-	-	-	-	-	\$0.100	
Incremental	-	-	-	-	-	-	-	-	-	
Net	\$0.076	\$0.024	-	-	-	-	-	-	\$0.100	
Cap+COR										
Reduction	-	-	-	-	-	-	-	-	-	
Initial	\$0.799	\$0.517	-	-	-	-	-	-	\$1.315	
Incremental	-	-	-	-	-	-	-	-	-	
Net	\$0.799	\$0.517	-	-	-	-	-	-	\$1.315	
Revenue										
Reduction	-	-	-	-	-	-	-	-	-	
Initial	-	-	-	-	-	-	-	-	-	
Incremental	-	-	-	-	-	-	-	-	-	
Net	-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)			-1.000							
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									

Enhancements-Cloud Automation		Report Pulled: 11/1/2024		Item ID: 8806					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow			Work Type	Project				
Alias	, Cloud Automation Phase 6m, Enhancements - Cloud Automation, Enhancements-Cloud Automation								
Description	The Enhancements - Cloud Automation project provides funding for small changes and improvements to existing software to address requests needed due to changing business requirements.								
Portfolio	IT Services > Infrastructure > Data Center - Enterprise Computing > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-ENTERPRISE PRODUCTS AND SEI				
WORK OBJECTIVES									
Problem Statement	The Company's existing cloud automation platform consists of a number of scripts that automate the build of infrastructure such as servers, operating systems, databases, and application installations in minutes or hours. These scripts include security hardening and application of the latest patches. This project will maintain and improve these scripts to ensure they meet the latest security policy and requirements, and any changes to the way the operating systems, databases, or applications are configured.								
Objectives	The value of this enhancement project is the implementation of small changes and functionality improvements to existing IT software application investments for Cloud Automation such as cost avoidance of 70 hours per year by removing failed build release tickets and 120 hours per year on Windows and Linux template patching improvements, safety, achieving corporate goals, and mitigating risk.								
Scope	The scope of the enhancement includes requests that will be fulfilled to provide functionality for areas such as automating IT servers, firewall set-ups, etc.								
Alternatives	The alternative would be to continue as is with existing scripts; however, this introduces security risks and additional manual steps to build infrastructure, which in turn, will lead to increased costs and risk of manual errors.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
	In-Service/Go-Live		Closeout						
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	\$0.315	-	-	-	-	-	-	-	\$0.315
O&M	\$0.191	-	-	-	-	-	-	-	\$0.191
Total Cost of Ownership	\$0.505	-	-	-	-	-	-	-	\$0.505
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	\$0.185	-	-	-	-	-	-	-	\$0.185
Outside Services	\$0.033	-	-	-	-	-	-	-	\$0.033
Business Expense/Overheads	\$0.123	-	-	-	-	-	-	-	\$0.123
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	\$0.164	-	-	-	-	-	-	-	\$0.164
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)	\$0.505	-	-	-	-	-	-	-	\$0.505
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.191	-	-	-	-	-	-	-	\$0.191
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.191	-	-	-	-	-	-	-	\$0.191
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.315	-	-	-	-	-	-	-	\$0.315
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.315	-	-	-	-	-	-	-	\$0.315
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000							
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Technology Capability	Administrative & General (A&G) Support								
Intangibles	Automation is a foundational digital capability that supports the destination strategies for Retail, Gas, Electric, and Digital, identified in Consumers Energy's ten year destination plan. The automation work in this project will directly support and enhance this capability for Consumers Energy.								
Intangibles	Each enhancement must define benefits that are reflected in the request value score.								

Enhancements-Corporate Services-O&M		Report Pulled: 11/1/2024		Item ID: 11155					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow			Work Type	Project				
Alias	, Application Currency and Enhancements – Corporate Services - Capital, Application Currency – Corporate Services - O&M, Enhancements – Corporate Services - Capital, Enhancements – Corporate Services - O&M, Enhancements-Corporate Services-O&M								
Description	The Corporate Services initiative will utilize O&M funding to make enhancements to existing software and to address requests generated by changing business requirements.								
Portfolio	IT Services > Applications > Corporate Services > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-PLANNING & GOV				
WORK OBJECTIVES									
Problem Statement	As business processes improve and change, new requirements surface that call for smaller-effort software application changes that typically emerge from new or changing business conditions, compliance requirements, needs for new capabilities, customer feedback, and other improvement ideas. Enhancing applications requires a short timeframe between inception and implementation and cannot and should not wait for rate case approval at an individual line-item level. Failure to make these changes to applications can have a direct negative impact on key customer and business processes, increase support costs, and limit the Company's ability to consistently meet objectives.								
Objectives	The value of software enhancements in the Corporate Services Portfolio lies in: (1) cost savings and cost avoidance; (2) technology and business process efficiencies; (3) improved customer experience; (4) risk mitigation; (5) safety improvements; and (6) achieving corporate goals, among others. While these small-work software efforts are neither projects nor operational work, funding for resources is still required to maintain business agility in the digital environment. Included in the implementation are small changes and functionality improvements to existing IT software application investments for Corporate Services.								
Scope	The scope of application enhancements encompasses: (1) making necessary system changes, and (2) updating documentation related to the changes. Additionally, enhancement requests are fulfilled to provide functionality for areas such as People and Culture (Human Resources), Legal, Finance and Governmental, Regulatory and, Public Affairs.								
Alternatives	Prior to implementing an enhancement, a review is completed to identify the best solution. During that review, requests for this funding are governed by a cross-functional board comprised of representatives from each area that routinely evaluates and prioritizes the work and to assess requests for value using categorized benefits. In addition, the overall enhancements budget is reviewed annually, and the alternative of a zero-budget allocation for enhancements is considered. This project fortifies the Company's ability to make software changes as part of process improvements and regulatory changes, and to meet legally required system changes. Without funding for enhancements, the Company will be limited in its ability to quickly provide needed capabilities and improvements.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
	In-Service/Go-Live		Closeout						
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	-	-	-	-	-	-	-	-	-
O&M	\$0.041	-	-	-	-	-	-	-	\$0.041
Total Cost of Ownership	\$0.041	-	-	-	-	-	-	-	\$0.041
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	\$0.012	-	-	-	-	-	-	-	\$0.012
Outside Services	\$0.026	-	-	-	-	-	-	-	\$0.026
Business Expense/Overheads	\$0.002	-	-	-	-	-	-	-	\$0.002
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)	\$0.041	-	-	-	-	-	-	-	\$0.041
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.041	-	-	-	-	-	-	-	\$0.041
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.041	-	-	-	-	-	-	-	\$0.041
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000							
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Technology Capability	Administrative & General (A&G) Support								
Risk Mitigation	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.								

Enhancements-CX&O-Capital		Report Pulled: 11/1/2024		Item ID: 11374					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow			Work Type	Project				
Alias	, Application Currency and Enhancements - CE&O - Capital, Application Currency - CE&O - Capital, Enhancement - CE&O - Capital, Enhancements - CE&O - Capital, Enhancements-CX&O-Capital, Enhancements-CX&O-Capital								
Description	The CX&O initiative will utilize both Capital and O&M funding to make enhancements to existing software and to address requests generated by changing business requirements. O&M is included in this project to complete expense activities associated with Capital enhancements.								
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-CUSTOMER EXP & OPS				
WORK OBJECTIVES									
Problem Statement	As business processes improve and change, new requirements surface that call for smaller-effort software application changes that typically emerge from new or changing business conditions, compliance requirements, needs for new capabilities, customer feedback, and other improvement ideas Enhancing applications requires a short timeframe between inception and implementation and cannot and should not wait for rate case approval at an individual line-item level. Failure to make these changes to applications can have a direct negative impact on key customer and business processes, increase support costs, and limit the Company's ability to consistently meet objectives.								
Objectives	The value of software enhancements in the CX&O Portfolio lies in: (1) cost savings and cost avoidance; (2) technology and business process efficiencies; (3) improved customer experience; (4) risk mitigation; (5) safety improvements; and (6) achieving corporate goals, among others. While these small-work software efforts are neither projects nor operational work, funding for resources is still required to maintain business agility in the digital environment.								
Scope	Included in the implementation are small changes and functionality improvements to existing IT software application investments for CX&O. The scope of application enhancements encompasses: (1) making necessary system changes, and (2) updating documentation related to the changes. Additionally, enhancement requests are fulfilled to provide functionality for areas such as Customer Experience Operations, Applications Support and, Device Management.								
Alternatives	Prior to implementing an enhancement, a review is completed to identify the best solution. During that review, requests for this funding are governed by a cross-functional board comprised of representatives from each area that routinely evaluates and prioritizes the work and to assess requests for value using categorized benefits. In addition, the overall enhancements budget is reviewed annually, and the alternative of a zero-budget allocation for enhancements is considered. This project fortifies the Company's ability to make software changes as part of process improvements and regulatory changes, and to meet legally required system changes. Without funding for enhancements, the Company will be limited in its ability to quickly provide needed capabilities and improvements.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
	In-Service/Go-Live		Closeout						
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	\$0.896	-	-	-	-	-	-	-	\$0.896
O&M	\$0.146	-	-	-	-	-	-	-	\$0.146
Total Cost of Ownership	\$1.042	-	-	-	-	-	-	-	\$1.042
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	\$0.109	-	-	-	-	-	-	-	\$0.109
Outside Services	\$0.652	-	-	-	-	-	-	-	\$0.652
Business Expense/Overheads	\$0.280	-	-	-	-	-	-	-	\$0.280
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	\$0.002	-	-	-	-	-	-	-	\$0.002
Other	-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)	\$1.042	-	-	-	-	-	-	-	\$1.042
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.146	-	-	-	-	-	-	-	\$0.146
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.146	-	-	-	-	-	-	-	\$0.146
Cap+COR	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.896	-	-	-	-	-	-	-	\$0.896
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.896	-	-	-	-	-	-	-	\$0.896
Revenue	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000							
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Technology Capability	Administrative & General (A&G) Support								
Risk Mitigation	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.								

Enh-CX&O-Q&M

Enh-IT-Cap

Enhancements-IT-O&M		Report Pulled: 11/1/2024		Item ID: 11334						
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Strategic/Grow			Work Type	Project					
Alias	Enhancements - TSM, Application Currency and Enhancements - Infrastructure Applications and Operations - O&M, Enhancements - Infrastructure Applications and Operations - Capital, Enhancements - IAO - Capital, Enhancements - IAO - O&M, Enhancements - IT - O&M, Enhancements-IT-O&M									
Description	The IT initiative will utilize O&M funding to make enhancements to existing software and to address requests generated by changing business requirements.									
Portfolio	IT Services > Infrastructure > Network Services > * > * > *									
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-ENTERPRISE PRODUCTS AND SER					
WORK OBJECTIVES										
Problem Statement	As business processes improve and change, new requirements surface that call for smaller-effort software application changes that typically emerge from new or changing business conditions, compliance requirements, needs for new capabilities, customer feedback, and other improvement ideas. Enhancing applications requires a short timeframe between inception and implementation and cannot and should not wait for rate case approval at an individual line-item level. Failure to make these changes to applications can have a direct negative impact on key customer and business processes, increase support costs, and limit the Company's ability to consistently meet objectives.									
Objectives	The value of software enhancements that benefit the IT organization lies in: (1) cost savings and cost avoidance; (2) technology and business process efficiencies; (3) improved customer experience; (4) risk mitigation; (5) safety improvements; and (6) achieving corporate goals, among others. While these small-work software efforts are neither projects nor operational work, funding for resources is still required to maintain business agility in the digital environment.									
Scope	Included in the implementation are small changes and functionality improvements to existing IT software application investments that are utilized by IT employees in support of tracking hardware and software fixes and managing technology projects for the various business areas within the Company. The scope of application enhancements encompasses: (1) making necessary system changes, and (2) updating documentation related to the changes. Additionally, enhancement requests are fulfilled to provide functionality for areas such as IT resource management, IT project management, IT financial and regulatory, IT applications operations, and IT infrastructure management.									
Alternatives	Prior to implementing an enhancement, a review is completed to identify the best solution. During that review, requests for this funding are governed by a cross-functional board comprised of representatives from each area that routinely evaluates and prioritizes the work and to assess requests for value using categorized benefits. In addition, the overall enhancements budget is reviewed annually, and the alternative of a zero-budget allocation for enhancements is considered. This project fortifies the Company's ability to make software changes as part of process improvements and regulatory changes, and to meet legally required system changes. Without funding for enhancements, the Company will be limited in its ability to quickly provide needed capabilities and improvements.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution					
	In-Service/Go-Live		Closeout							
FUNDING SUMMARY										
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Cap+COR	-	-	-	-	-	-	-	-	-	
O&M	\$0.073	\$0.004	-	-	-	-	-	-	\$0.077	
Total Cost of Ownership	\$0.073	\$0.004	-	-	-	-	-	-	\$0.077	
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Labor	\$0.009	-	-	-	-	-	-	-	\$0.009	
Outside Services	\$0.057	\$0.003	-	-	-	-	-	-	\$0.060	
Business Expense/Overheads	\$0.003	\$0.000	-	-	-	-	-	-	\$0.003	
Employee Benefits	-	-	-	-	-	-	-	-	-	
Materials	-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees	\$0.004	-	-	-	-	-	-	-	\$0.004	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost (Annual)	\$0.073	\$0.004	-	-	-	-	-	-	\$0.077	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.073	\$0.004	-	-	-	-	-	-	\$0.077
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.073	\$0.004	-	-	-	-	-	-	\$0.077
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000								
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									
Technology Capability	Administrative & General (A&G) Support									
Intangibles	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.									

Enhancements-Operations-Capital		Report Pulled: 11/1/2024		Item ID: 11325					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow			Work Type	Project				
Alias	, Application Currency and Enhancements - Operations - Capital, Enhancements - Operations - Capital, Enhancements-Operations-Capital								
Description	The Operations initiative will utilize both Capital and O&M funding to make enhancements to existing software and to address requests generated by changing business requirements. O&M is included in this project to complete expense activities associated with Capital enhancements.								
Portfolio	IT Services > Applications > Foundational Enterprise Applications > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-OPERATIONS				
WORK OBJECTIVES									
Problem Statement	As business processes improve and change, new requirements surface that call for smaller-effort software application changes that typically emerge from new or changing business conditions, compliance requirements, needs for new capabilities, customer feedback, and other improvement ideas Enhancing applications requires a short timeframe between inception and implementation and cannot and should not wait for rate case approval at an individual line-item level. Failure to make these changes to applications can have a direct negative impact on key customer and business processes, increase support costs, and limit the Company's ability to consistently meet objectives.								
Objectives	The value of software enhancements in the Operations Portfolio lies in: (1) cost savings and cost avoidance; (2) technology and business process efficiencies; (3) improved customer experience; (4) risk mitigation; (5) safety improvements; and (6) achieving corporate goals, among others. While these small-work software efforts are neither projects nor operational work, funding for resources is still required to maintain business agility in the digital environment.								
Scope	Included in the implementation are small changes and functionality improvements to existing IT software application investments for Operations. The scope of application enhancements encompasses: (1) making necessary system changes, and (2) updating documentation related to the changes. Additionally, enhancement requests are fulfilled to provide functionality for areas such as Electric, Gas and Generation Operations, Operations Performance, Operations and Financial Reporting and, Operations Compliance and Controls.								
Alternatives	Prior to implementing an enhancement, a review is completed to identify the best solution. During that review, requests for this funding are governed by a cross-functional board comprised of representatives from each area that routinely evaluates and prioritizes the work and to assess requests for value using categorized benefits. In addition, the overall enhancements budget is reviewed annually, and the alternative of a zero-budget allocation for enhancements is considered. This project fortifies the Company's ability to make software changes as part of process improvements and regulatory changes, and to meet legally required system changes. Without funding for enhancements, the Company will be limited in its ability to quickly provide needed capabilities and improvements.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
	In-Service/Go-Live		Closout						
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	\$0.599	\$0.201	-	-	-	-	-	-	\$0.800
O&M	\$0.028	\$0.003	-	-	-	-	-	-	\$0.031
Total Cost of Ownership	\$0.626	\$0.204	-	-	-	-	-	-	\$0.830
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	\$0.157	\$0.199	-	-	-	-	-	-	\$0.355
Outside Services	\$0.258	\$0.005	-	-	-	-	-	-	\$0.263
Business Expense/Overheads	\$0.203	\$0.015	-	-	-	-	-	-	\$0.218
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	\$0.009	-	-	-	-	-	-	-	\$0.009
Licenses, Permits & Fees	-	\$(0.014)	-	-	-	-	-	-	\$(0.014)
Other	-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)	\$0.626	\$0.204	-	-	-	-	-	-	\$0.830
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.028	\$0.003	-	-	-	-	-	-	\$0.031
Incremental									
Net	\$0.028	\$0.003	-	-	-	-	-	-	\$0.031
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.599	\$0.201	-	-	-	-	-	-	\$0.800
Incremental									
Net	\$0.599	\$0.201	-	-	-	-	-	-	\$0.800
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-1.000						
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Technology Capability	Administrative & General (A&G) Support								
Intangibles	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.								

Enhancements-Operations-O&M		Report Pulled: 11/1/2024		Item ID: 11327						
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Strategic/Grow			Work Type	Project					
Alias	, Enhancements - Operations - O&M, Application Currency and Enhancements - Operations - O&M, Enhancements - Operations - O&M, Enhancements-Operations-O&M									
Description	The Operations initiative will utilize O&M funding to make enhancements to existing software and to address requests generated by changing business requirements.									
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *									
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-OPERATIONS					
WORK OBJECTIVES										
Problem Statement	As business processes improve and change, new requirements surface that call for smaller-effort software application changes that typically emerge from new or changing business conditions, compliance requirements, needs for new capabilities, customer feedback, and other improvement ideas. Enhancing applications requires a short timeframe between inception and implementation and cannot and should not wait for rate case approval at an individual line-item level. Failure to make these changes to applications can have a direct negative impact on key customer and business processes, increase support costs, and limit the Company's ability to consistently meet objectives.									
Objectives	The value of software enhancements in the Operations Portfolio lies in: (1) cost savings and cost avoidance; (2) technology and business process efficiencies; (3) improved customer experience; (4) risk mitigation; (5) safety improvements; and (6) achieving corporate goals, among others. While these small-work software efforts are neither projects nor operational work, funding for resources is still required to maintain business agility in the digital environment. Included in the implementation are small changes and functionality improvements to existing IT software application investments for Operations.									
Scope	The scope of application enhancements encompasses: (1) making necessary system changes, and (2) updating documentation related to the changes. Additionally, enhancement requests are fulfilled to provide functionality for areas such as Electric, Gas and Generation Operations, Operations Performance, Operations and Financial Reporting and, Operations Compliance and Controls.									
Alternatives	Prior to implementing an enhancement, a review is completed to identify the best solution. During that review, requests for this funding are governed by a cross-functional board comprised of representatives from each area that routinely evaluates and prioritizes the work and to assess requests for value using categorized benefits. In addition, the overall enhancements budget is reviewed annually, and the alternative of a zero-budget allocation for enhancements is considered. This project fortifies the Company's ability to make software changes as part of process improvements and regulatory changes, and to meet legally required system changes. Without funding for enhancements, the Company will be limited in its ability to quickly provide needed capabilities and improvements.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution					
	In-Service/Go-Live		Closeout							
FUNDING SUMMARY										
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Cap+COR			-	-	-	-	-	-		
O&M	\$0.132	\$0.248	-	-	-	-	-	-	\$0.380	
Total Cost of Ownership	\$0.132	\$0.248	-	-	-	-	-	-	\$0.380	
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Labor	\$0.044	\$0.138	-	-	-	-	-	-	\$0.182	
Outside Services	\$0.073	\$0.105	-	-	-	-	-	-	\$0.178	
Business Expense/Overheads	\$0.007	\$0.005	-	-	-	-	-	-	\$0.012	
Employee Benefits	-	-	-	-	-	-	-	-	-	
Materials	-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees	\$0.007	\$0.001	-	-	-	-	-	-	\$0.008	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost (Annual)	\$0.132	\$0.248	-	-	-	-	-	-	\$0.380	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.132	\$0.248	-	-	-	-	-	-	\$0.380
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.132	\$0.248	-	-	-	-	-	-	\$0.380
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000								
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									
Intangibles	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.									
Technology Capability	Work Management									

Enhancements-Security-Capital			Report Pulled: 11/1/2024			Item ID: 11338					
EXECUTIVE SUMMARY											
BASIC INFORMATION											
Work Category	Strategic/Grow		Work Type		Project						
Alias	Cyber Security Enhancements, Application Currency and Enhancements - Security - O&M, Enhancements - Security - O&M, Enhancements - Security - Capital, Enhancements-Security-Capital										
Description	This initiative will use Capital funding to make enhancements to existing technology and to address requests generated by changing business requirements. O&M is included in this project to complete expense activities associated with Capital enhancements in accordance with accounting rules.										
Portfolio	Corporate Services > Security Services > Security > * > * > *										
Org	CX&T		Bus Unit		SECURITY		Dept CX&T-SECURITY-SECURITY PROGRAM MGI				
WORK OBJECTIVES											
Problem Statement	As business processes improve and change, new requirements surface that call for smaller-effort software application changes that typically emerge from new or changing business conditions, compliance requirements, needs for new capabilities, customer feedback, and other improvement ideas. Enhancing applications requires a short timeframe between inception and implementation and cannot and should not wait for rate case approval at an individual line-item level. Failure to make these changes to applications can have a direct negative impact on key customer and business processes, increase support costs, and limit the Company's ability to consistently meet objectives.										
Objectives	The value of software enhancements in Security lies in: (1) cost savings and cost avoidance; (2) technology and business process efficiencies; (3) improved customer experience; (4) risk mitigation; (5) safety improvements; and (6) achieving corporate goals, among others. While these small-work software efforts are neither projects nor operational work, funding for resources is still required to maintain business agility in the digital environment.										
Scope	Included in the implementation are small changes and functionality improvements to existing IT software application investments for Security in support of tracking hardware and software fixes and managing technology projects for the various business areas within the Company. The scope of application enhancements encompasses: (1) making necessary system changes, and (2) updating documentation related to the changes. Additionally, enhancement requests are fulfilled to provide functionality for areas such as cyber security related platforms, cyber security incident response, physical security, security awareness, risk management, privacy and compliance.										
Alternatives	Prior to implementing a Security enhancement, a review is completed to identify the best solution. During that review, requests for this funding are governed by a cross-functional board comprised of representatives from each area that routinely evaluates and prioritizes the work and to assess requests for value using categorized benefits. In addition, the overall enhancements budget is reviewed annually, and the alternative of a zero-budget allocation for enhancements is considered. This project fortifies the Company's ability to make software changes as part of process improvements and regulatory changes, and to meet legally required system changes. Without funding for Security enhancements, the Company will be limited in its ability to quickly provide needed capabilities and improvements.										
DATES (phase end)											
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution						
	In-Service/Go-Live		Closeout								
FUNDING SUMMARY											
			2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR			\$1.270	\$0.012	\$1.599	\$0.776	\$0.776	\$0.776	\$0.776	-	\$5.985
O&M			\$0.267	-	\$0.100	\$0.154	\$0.154	\$0.154	\$0.154	-	\$0.982
Total Cost of Ownership			\$1.537	\$0.012	\$1.699	\$0.930	\$0.930	\$0.930	\$0.930	-	\$6.967
			2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor			\$0.617	-	\$0.518	\$0.287	\$0.287	\$0.287	\$0.287	-	\$2.281
Outside Services			\$0.151	\$0.012	\$0.274	\$0.274	\$0.274	\$0.274	\$0.274	-	\$1.535
Business Expense/Overheads			\$0.131	-	\$0.883	\$0.345	\$0.345	\$0.345	\$0.345	-	\$2.392
Employee Benefits			-	-	-	-	-	-	-	-	-
Materials			\$0.026	-	\$0.024	\$0.024	\$0.024	\$0.024	\$0.024	-	\$0.148
Licenses, Permits & Fees			\$0.612	-	-	-	-	-	-	-	\$0.612
Other			-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)			\$1.537	\$0.012	\$1.699	\$0.930	\$0.930	\$0.930	\$0.930	-	\$6.967
VALUE & IMPACTS SUMMARY											
FINANCIAL IMPACTS											
			2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	Reduction		-	-	-	-	-	-	-	-	-
	Initial		\$0.267	-	\$0.100	\$0.154	\$0.154	\$0.154	\$0.154	-	\$0.982
	Incremental		-	-	-	-	-	-	-	-	-
	Net		\$0.267	-	\$0.100	\$0.154	\$0.154	\$0.154	\$0.154	-	\$0.982
Cap+COR	Reduction		-	-	-	-	-	-	-	-	-
	Initial		\$1.270	\$0.012	\$1.599	\$0.776	\$0.776	\$0.776	\$0.776	-	\$5.985
	Incremental		-	-	-	-	-	-	-	-	-
	Net		\$1.270	\$0.012	\$1.599	\$0.776	\$0.776	\$0.776	\$0.776	-	\$5.985
Revenue	Reduction		-	-	-	-	-	-	-	-	-
	Initial		-	-	-	-	-	-	-	-	-
	Incremental		-	-	-	-	-	-	-	-	-
	Net		-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-1.000								
Risk Tolerance											
Corporate Risk	Impact	Likelihood	Description								
OTHER VALUE											
Type			Description								
Technology Capability			Administrative & General (A&G) Support								
Intangibles			Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.								

Enhancements-Security-O&M		Report Pulled: 11/1/2024	Item ID: 8237						
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow		Work Type <u>Project</u>						
Alias	Cyber Security Enhancements, Application Currency and Enhancements - Security - O&M, Enhancements – Security – O&M, Enhancements-Security-O&M								
Description	This initiative will use O&M funding to make enhancements to existing technology and to address requests generated by changing business requirements.								
Portfolio	Corporate Services > Security Services > Security > * > * > *								
Org	CX&T	Bus Unit SECURITY	Dept CX&T-SECURITY-SECURITY PROGRAM MG						
WORK OBJECTIVES									
Problem Statement	As business processes improve and change, new requirements surface that call for smaller-effort software application changes that typically emerge from new or changing business conditions, compliance requirements, needs for new capabilities, customer feedback, and other improvement ideas. Enhancing applications requires a short timeframe between inception and implementation and cannot and should not wait for rate case approval at an individual line-item level. Failure to make these changes to applications can have a direct negative impact on key customer and business processes, increase support costs, and limit the Company's ability to consistently meet objectives.								
Objectives	The value of software enhancements in Security lies in: (1) cost savings and cost avoidance; (2) technology and business process efficiencies; (3) improved customer experience; (4) risk mitigation; (5) safety improvements; and (6) achieving corporate goals, among others. While these small-work software efforts are neither projects nor operational work, funding for resources is still required to maintain business agility in the digital environment.								
Scope	Included in the implementation are small changes and functionality improvements to existing IT software application investments for Security in support of tracking hardware and software fixes and managing technology projects for the various business areas within the Company. The scope of application enhancements encompasses: (1) making necessary system changes, and (2) updating documentation related to the changes. Additionally, enhancement requests are fulfilled to provide functionality for areas such as cyber security related platforms, cyber security incident response, physical security, security awareness, risk management, privacy and compliance.								
Alternatives	Prior to implementing a Security enhancement, a review is completed to identify the best solution. During that review, requests for this funding are governed by a cross-functional board comprised of representatives from each area that routinely evaluates and prioritizes the work and to assess requests for value using categorized benefits. In addition, the overall enhancements budget is reviewed annually, and the alternative of a zero-budget allocation for enhancements is considered. This project fortifies the Company's ability to make software changes as part of process improvements and regulatory changes, and to meet legally required system changes. Without funding for Security enhancements, the Company will be limited in its ability to quickly provide needed capabilities and improvements.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition	Final Engineering, Planning & Design	Execution						
	In-Service/Go-Live	Closeout							
FUNDING SUMMARY									
	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030 +</u>	<u>Total</u>
Cap+COR	-	-	-	-	-	-	-	-	-
O&M	\$0.632	\$0.665	\$0.399	\$0.319	\$0.319	\$0.319	\$0.319	-	\$2.973
Total Cost of Ownership	\$0.632	\$0.665	\$0.399	\$0.319	\$0.319	\$0.319	\$0.319	-	\$2.973
	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030 +</u>	<u>Total</u>
Labor	\$0.577	\$0.558	\$0.356	\$0.294	\$0.294	\$0.294	\$0.294	-	\$2.668
Outside Services	-	\$0.079	\$0.007	\$0.007	\$0.007	\$0.007	\$0.007	-	\$0.114
Business Expense/Overheads	\$0.017	\$0.005	\$0.036	\$0.018	\$0.018	\$0.018	\$0.018	-	\$0.130
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	\$0.037	\$0.024	-	-	-	-	-	-	\$0.061
Other	-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)	\$0.632	\$0.665	\$0.399	\$0.319	\$0.319	\$0.319	\$0.319	-	\$2.973
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030 +</u>	<u>Total</u>
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.632	\$0.665	\$0.399	\$0.319	\$0.319	\$0.319	\$0.319	-	\$2.973
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.632	\$0.665	\$0.399	\$0.319	\$0.319	\$0.319	\$0.319	-	\$2.973
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-1.000						
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Technology Capability	Administrative & General (A&G) Support								
Intangibles	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.								

Enhancements-TEOS-Capital		Report Pulled: 11/1/2024		Item ID: 11328					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	<u>Strategic/Grow</u>			Work Type	<u>Project</u>				
Alias	<u>. Application Currency and Enhancements - TEOS - Capital, Enhancements - TEOS - Capital, Enhancements-TEOS-Capital</u>								
Description	The TEOS initiative will utilize both Capital and O&M funding to make enhancements to existing software and to address requests generated by changing business requirements. O&M is included in this project to complete expense activities associated with Capital enhancements.								
Portfolio	<u>IT Services > Applications > Common Delivery Systems > * > * > *</u>								
Org	<u>CX&T</u>	Bus Unit	<u>INFORMATION TECHNOLOGY</u>	Dept	<u>CX&T-IT-TRANS, OPS SUPPORT AND ENG</u>				
WORK OBJECTIVES									
Problem Statement	As business processes improve and change, new requirements surface that call for smaller-effort software application changes that typically emerge from new or changing business conditions, compliance requirements, needs for new capabilities, customer feedback, and other improvement ideas. Enhancing applications requires a short timeframe between inception and implementation and cannot and should not wait for rate case approval at an individual line-item level. Failure to make these changes to applications can have a direct negative impact on key customer and business processes, increase support costs, and limit the Company's ability to consistently meet objectives.								
Objectives	The value of software enhancements in the TEOS Portfolio lies in: (1) cost savings and cost avoidance; (2) technology and business process efficiencies; (3) improved customer experience; (4) risk mitigation; (5) safety improvements; and (6) achieving corporate goals, among others. While these small-work software efforts are neither projects nor operational work, funding for resources is still required to maintain business agility in the digital environment. Included in the implementation are small changes and functionality improvements to existing IT software application investments for TEOS.								
Scope	The scope of application enhancements encompasses: (1) making necessary system changes, and (2) updating documentation related to the changes. Additionally, enhancement requests are fulfilled to provide functionality for areas such as Gas Engineering, Customer Energy Management, Electric Grid Integration, and Fleet.								
Alternatives	Prior to implementing an enhancement, a review is completed to identify the best solution. During that review, requests for this funding are governed by a cross-functional board comprised of representatives from each area that routinely evaluates and prioritizes the work and to assess requests for value using categorized benefits. In addition, the overall enhancements budget is reviewed annually, and the alternative of a zero-budget allocation for enhancements is considered. This project fortifies the Company's ability to make software changes as part of process improvements and regulatory changes, and to meet legally required system changes. Without funding for enhancements, the Company will be limited in its ability to quickly provide needed capabilities and improvements.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
	In-Service/Go-Live		Closout						
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	\$0.541	\$0.067	-	-	-	-	-	-	\$0.608
O&M	\$0.042	\$0.100	-	-	-	-	-	-	\$0.142
Total Cost of Ownership	\$0.583	\$0.167	-	-	-	-	-	-	\$0.750
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	\$0.120	\$0.091	-	-	-	-	-	-	\$0.211
Outside Services	\$0.278	\$0.066	-	-	-	-	-	-	\$0.344
Business Expense/Overheads	\$0.184	\$0.011	-	-	-	-	-	-	\$0.195
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)	\$0.583	\$0.167	-	-	-	-	-	-	\$0.750
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.042	\$0.100	-	-	-	-	-	-	\$0.142
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.042	\$0.100	-	-	-	-	-	-	\$0.142
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.541	\$0.067	-	-	-	-	-	-	\$0.608
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.541	\$0.067	-	-	-	-	-	-	\$0.608
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-1.000						
Risk Tolerance									
<u>Corporate Risk</u>	<u>Impact</u>	<u>Likelihood</u>	<u>Description</u>						
OTHER VALUE									
<u>Type</u>	<u>Description</u>								
Technology Capability	Electric T&D, Gas T&D, Generation								
Risk Mitigation	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion.								

Enhancements-TEOS-O&M		Report Pulled: 11/1/2024		Item ID: 11329						
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Strategic/Grow			Work Type	Project					
Alias	, Enhancements - TEOS - O&M, Application Currency and Enhancements - TEOS -O&M, Enhancements - TEOS -O&M, Enhancements - TEOS - O&M, Enhancements-TEOS-O&M									
Description	The TEOS initiative will utilize O&M funding to make enhancements to existing software and to address requests generated by changing business requirements.									
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *									
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-TRANS, OPS SUPPORT AND ENG					
WORK OBJECTIVES										
Problem Statement	As business processes improve and change, new requirements surface that call for smaller-effort software application changes that typically emerge from new or changing business conditions, compliance requirements, needs for new capabilities, customer feedback, and other improvement ideas Enhancing applications requires a short timeframe between inception and implementation and cannot and should not wait for rate case approval at an individual line-item level. Failure to make these changes to applications can have a direct negative impact on key customer and business processes, increase support costs, and limit the Company's ability to consistently meet objectives.									
Objectives	The value of software enhancements in the TEOS Portfolio lies in: (1) cost savings and cost avoidance; (2) technology and business process efficiencies; (3) improved customer experience; (4) risk mitigation; (5) safety improvements; and (6) achieving corporate goals, among others. While these small-work software efforts are neither projects nor operational work, funding for resources is still required to maintain business agility in the digital environment.									
Scope	Included in the implementation are small changes and functionality improvements to existing IT software application investments for TEOS. The scope of application enhancements encompasses: (1) making necessary system changes, and (2) updating documentation related to the changes. Additionally, enhancement requests are fulfilled to provide functionality for areas such as Gas Engineering, Customer Energy Management, Electric Grid Integration, and Fleet.									
Alternatives	Prior to implementing an enhancement, a review is completed to identify the best solution. During that review, requests for this funding are governed by a cross-functional board comprised of representatives from each area that routinely evaluates and prioritizes the work and to assess requests for value using categorized benefits. In addition, the overall enhancements budget is reviewed annually, and the alternative of a zero-budget allocation for enhancements is considered. This project fortifies the Company's ability to make software changes as part of process improvements and regulatory changes, and to meet legally required system changes. Without funding for enhancements, the Company will be limited in its ability to quickly provide needed capabilities and improvements.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution					
	In-Service/Go-Live		Closeout							
FUNDING SUMMARY										
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Cap+COR		-	-	-	-	-	-	-		
O&M	\$0.129	-	-	-	-	-	-	-	\$0.129	
Total Cost of Ownership	\$0.129	-	-	-	-	-	-	-	\$0.129	
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Labor	\$0.031	-	-	-	-	-	-	-	\$0.031	
Outside Services	\$0.089	-	-	-	-	-	-	-	\$0.089	
Business Expense/Overheads	\$0.009	-	-	-	-	-	-	-	\$0.009	
Employee Benefits	-	-	-	-	-	-	-	-	-	
Materials	-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees	\$0.000	-	-	-	-	-	-	-	\$0.000	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost (Annual)	\$0.129	-	-	-	-	-	-	-	\$0.129	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.129	-	-	-	-	-	-	-	\$0.129
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.129	-	-	-	-	-	-	-	\$0.129
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000								
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Technology Capability					Description				
						Electric T&D, Gas T&D, Generation				
Intangibles						Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.				

Enterprise Print - Scan Suite		Report Pulled: 11/1/2024		Item ID: 11651					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Maintain - Interval			Work Type	Project				
Alias	, Enterprise Print - Scan Suite								
Description	The projects intent is to upgrade the current Enterprise Print and Capture suite for improved data security and integration for the work from home business partner.								
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	Unspecified				
WORK OBJECTIVES									
Problem Statement	The company currently maintains a print and capture suite that will have support ending in 2025. Only high-level security patches will be available after this date. The company maintains a fleet of servers that are scheduled to be upgraded. The current print and capture suite is not compatible with the targeted server operating systems. The lack of internal resources requires the company to continue to absorb increased costs to contract administrative personal.								
Objectives	This project maintains cost savings achieved by eliminating wasteful print jobs and further enables a productive, and flexible workforce for business partners working remotely. This project also ensures that the latest data transmission security requirements of are met by the solution.								
Scope	The project scope includes: (1) upgrading the current suite to the latest version; (2) consolidating the amount of print servers in the environment; (3) training for company personal to administer the suite; (4) converting all workflows from the current system; (5) implementing remediation for security vulnerability risk; (6) integrating device management with Enterprise Configuration Management Database (CMDB) for asset tracking and monitoring.								
Alternatives	Alternatives considered: (1) migrating to cloud services. This alternative was not chosen at this time due to maturity levels found with subscription services. (2) other print-scan products. This alternative was not selected as it would required new print and scanning specific to another print-scan product.. (3) Print-scan products that were less costs. This alternative was not selected, due to fewer capabilities offered than the current product, which would introduction inefficiencies in the current processes. (4) upgrade current product. This alternative was chosen due to lower overall cost of not requiring new hardware, maturity of current product, and providing same level of capabilities required to support current processes.								
DATES (phase end)									
Initiation 1/1/2024	Project Plan & Scope Definition 2/6/2024 In-Service/Go-Live 7/31/2024		Final Engineering, Planning & Design 3/29/2024 Closeout 10/31/2024		Execution 5/31/2024				
FUNDING SUMMARY									
Cap+COR	2024 \$0.680	2025	2026	2027	2028	2029	2030	2031 +	Total \$0.680
O&M	\$0.217	\$0.004	\$0.004	\$0.004	\$0.004	\$0.004	-	-	\$0.236
Total Cost of Ownership	\$0.897	\$0.004	\$0.004	\$0.004	\$0.004	\$0.004	-	-	\$0.916
Labor	2024 \$0.244	2025	2026	2027	2028	2029	2030	2031 +	Total \$0.244
Outside Services	\$0.651	-	-	-	-	-	-	-	\$0.651
Business Expense/Overheads	\$0.002	-	-	-	-	-	-	-	\$0.002
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	\$0.897	-	-	-	-	-	-	-	\$0.897
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
O&M	2024 Reduction Initial Incremental Net	2025 -\$0.217 \$0.004 -\$0.004 \$0.004	2026 -\$0.004 \$0.004 -\$0.004 \$0.004	2027 -\$0.004 \$0.004 -\$0.004 \$0.004	2028 -\$0.004 \$0.004 -\$0.004 \$0.004	2029 -\$0.004 \$0.004 -\$0.004 \$0.004	2030 -\$0.004 \$0.004 -\$0.004 \$0.004	2031 + -\$0.004 \$0.004 -\$0.004 \$0.004	Total -\$0.236 \$0.236 -\$0.236 \$0.236
Cap+COR	2024 Reduction Initial Incremental Net	2025 -\$0.680 \$0.680 -\$0.680 \$0.680	2026 -\$0.680 \$0.680 -\$0.680 \$0.680	2027 -\$0.680 \$0.680 -\$0.680 \$0.680	2028 -\$0.680 \$0.680 -\$0.680 \$0.680	2029 -\$0.680 \$0.680 -\$0.680 \$0.680	2030 -\$0.680 \$0.680 -\$0.680 \$0.680	2031 + -\$0.680 \$0.680 -\$0.680 \$0.680	Total -\$0.680 \$0.680 -\$0.680 \$0.680
Revenue	2024 Reduction Initial Incremental Net	2025 -\$0.680 \$0.680 -\$0.680 \$0.680	2026 -\$0.680 \$0.680 -\$0.680 \$0.680	2027 -\$0.680 \$0.680 -\$0.680 \$0.680	2028 -\$0.680 \$0.680 -\$0.680 \$0.680	2029 -\$0.680 \$0.680 -\$0.680 \$0.680	2030 -\$0.680 \$0.680 -\$0.680 \$0.680	2031 + -\$0.680 \$0.680 -\$0.680 \$0.680	Total -\$0.680 \$0.680 -\$0.680 \$0.680
		B/C Ratio (Overall) -1.000							
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Risk Mitigation	Security maintenance on the current system will become unsupported which will expose the environment to vulnerabilities.								
Risk Mitigation	Will allow for mitigation of a current vulnerability with data traffic not encrypted and exposed to any bad agent that would monitor the printer port.								

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Enterprise Service Bus Application 2020-2021 Upgrade				Report Pulled: 11/1/2024				Item ID: 6734				
EXECUTIVE SUMMARY												
BASIC INFORMATION												
Work Category	Maintain - Interval						Work Type	Project				
Alias	ESB BW6 Upgrade, Enterprise Service Bus Application Upgrade, Enterprise Service Bus Application 2020-2021 Upgrade											
Description	This project will upgrade and migrate the Business Works developer application to the next version.											
Portfolio	IT Services > Applications > Foundational Enterprise Applications > * > * > *											
Org	CX&T			Bus Unit	INFORMATION TECHNOLOGY			Dept	CX&T-IT-PROD TRANSF, ARCH & QUAL			
WORK OBJECTIVES												
Problem Statement	Newer Enterprise Service Bus (ESB) software versions offer improved integration with cloud-based services and applications. As the Company increasingly migrates to cloud-based Infrastructure, Platform- and Software-as-a-Service solutions, it is critical that this vital data tool or pathway, be more scalable, secure, and capable of working in a cloud-based environment. In addition, the messaging and event modules within the ESB are currently outside of their standard support windows. While it is possible to continue to get extended support by paying an estimated premium of \$40,000, this is just temporary coverage and serves only to delay the need for an upgrade—not a prudent use of resources.											
Objectives	The value this project provides the Company includes: (1) accelerated productivity; (2) continuous delivery and integration; (3) an open ecosystem for improved operational visibility; (4) real-time integration with web, mobile apps, and application programming interfaces; and (5) improved administrative and operational efficiencies.											
Scope	The project scope includes: (1) implementing new versions of all applications that are part of the Tibco ESB software suite – BusinessWorks, Enterprise Messaging Service, BusinessEvents, API Exchange, and Hawk; and (2) a server refresh. The new products will be implemented on the latest version of the SUSE Enterprise Edition operating system.											
Alternatives	Alternatives considered included: (1) Absorb the annual \$40,000 maintenance cost and lose supportability. Given the critical nature of this application, it is not recommended to lose mainstream support for any of the applications involved. Any sustained ESB product deficiency would impact many areas of the Company, such as billing, revenue collection, and remote meters. The current implementation of the ESB platform was built with 5 years of growth in mind. This alternative was not chosen for these reasons, and the additional expense. (2) Replace the platform by moving it to cloud. Migrating the ESB to the cloud would be too early in the Company's strategy for cloud adoption, which may cause issues with operational stability and incur additional expenditure. A cloud migration would also take longer to plan, which would put the Company at risk of falling outside of the the current vendor support window for the product's current version. (3) Upgrade the existing application. This option was selected because it best suits customer and Company needs for the near future by restoring vendor support for hot fixes and patches, and enables product scalability to the measure required of the business.											
DATES (phase end)												
Initiation	Project Plan & Scope Definition				Final Engineering, Planning & Design				Execution			
1/1/2021	2/28/2021				3/31/2021				4/1/2021			
	In-Service/Go-Live				Closeout							
	4/1/2022				5/1/2022							
FUNDING SUMMARY												
		2020	2021	2022	2023	2024	2025	2026	2027 +	Total		
Cap+COR		-	\$1,736	\$2,143	\$1,543	\$0,000	-	-	-	\$5,423		
O&M		\$0,069	\$0,245	\$0,322	\$1,044	-	-	-	-	\$1,679		
Total Cost of Ownership		\$0,069	\$1,981	\$2,465	\$2,587	\$0,000	-	-	-	\$7,102		
		2020	2021	2022	2023	2024	2025	2026	2027 +	Total		
Labor		\$0,021	\$0,249	\$0,510	\$0,753	\$0,000	-	-	-	\$1,534		
Outside Services		\$0,043	\$1,471	\$1,460	\$1,180	-	-	-	-	\$4,154		
Business Expense/Overheads		\$0,005	\$0,261	\$0,433	\$0,486	\$0,000	-	-	-	\$1,185		
Employee Benefits		-	-	-	-	-	-	-	-	-		
Materials		-	-	\$0,033	\$0,167	-	-	-	-	\$0,200		
Licenses, Permits & Fees		-	-	\$0,029	\$0,001	-	-	-	-	\$0,030		
Other		-	-	-	-	-	-	-	-	-		
Total Project Cost		\$0,069	\$1,981	\$2,465	\$2,587	\$0,000	-	-	-	\$7,102		
VALUE & IMPACTS SUMMARY												
FINANCIAL IMPACTS												
		2020	2021	2022	2023	2024	2025	2026	2027 +	Total		
O&M	Reduction	-	\$(0,030)	\$(0,030)	-	-	-	-	-	\$(0,060)		
	Initial	\$0,069	\$0,245	\$0,322	\$1,044	-	-	-	-	\$1,679		
	Incremental	-	-	-	-	-	-	-	-	-		
	Net	\$0,069	\$0,215	\$0,292	\$1,044	-	-	-	-	\$1,619		
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-		
	Initial	-	\$1,736	\$2,143	\$1,543	\$0,000	-	-	-	\$5,423		
	Incremental	-	-	-	-	-	-	-	-	-		
	Net	-	\$1,736	\$2,143	\$1,543	\$0,000	-	-	-	\$5,423		
Revenue	Reduction	-	-	-	-	-	-	-	-	-		
	Initial	-	-	-	-	-	-	-	-	-		
	Incremental	-	-	-	-	-	-	-	-	-		
	Net	-	-	-	-	-	-	-	-	-		
B/C Ratio (Overall)		-0.992										
Risk Tolerance												
Corporate Risk	Impact	Likelihood	Description									
OTHER VALUE												
Type	Description											
Risk Mitigation	Consumers Energy will lose support on critical ESB software components that support OpenWay Collection Engine, SAP, ITRON, DIV, DRMS, MDM, IWP, PayGo, Grid Director, Field Service Solution, and Digital Customer Experience. Rebuilding the ESB Platform and ensuring the current production integrations will not be impacted as well as meeting or exceeding current service levels is critical.											
Capacity	The current implementation of the ESB platform was built with 5 years of growth in mind. Upgrading the ESB on a regularly scheduled cadence will allow Consumers to grow the the application around the business' needs.											

Enterprise Service Bus Application 2024-2025 Upgrade				Report Pulled: 11/1/2024				Item ID: 11727											
EXECUTIVE SUMMARY																			
BASIC INFORMATION																			
Work Category		Maintain - Interval						Work Type		Project									
Alias		ESB BW6 Upgrade,Enterprise Service Bus Application Upgrade, Enterprise Service Bus Application 2023-2024 Upgrade, Enterprise Service Bus Application 2024-2025 Upgrade																	
Description		This project will upgrade and migrate the Business Works developer application to the next version.																	
Portfolio		IT Services > Applications > Foundational Enterprise Applications > * > * > *																	
Org		CX&T				Bus Unit		INFORMATION TECHNOLOGY		Dept CX&T-IT-APPLICATION PLATFORMS & SER									
WORK OBJECTIVES																			
Problem Statement		Newer ESB software versions offer improved integration with Rest/API services and applications. It is critical that this vital data tool or pathway, be more scalable, secure, and capable of integrating to a service-based environment. In addition, the messaging and event modules within the ESB are currently outside of their standard support windows. While it is possible to continue to get extended support by paying an estimated premium of approximately \$80,000 annually, this is just temporary coverage and serves only to delay the need for an upgrade.																	
Objectives		The value this project provides the Company includes: (1) cost avoidance to avoid extensive payments for extend support purposes; (2) avoid technical obsolescence; (3) operational resiliency; and (4) improved administrative and operational efficiencies.																	
Scope		The project scope includes implementing current version of all applications that are part of the ESB application, database version, and required database drivers.																	
Alternatives		Alternatives considered included: (1) Accept the annual \$80,000 extended maintenance cost. Given the critical nature of this application, it is not recommended to lose mainstream support for any of the applications involved. Any sustained ESB product deficiency would impact many areas of the Company, such as billing, revenue collection, and remote meter management. The current implementation of the ESB platform was built with 5 years of growth in mind. This alternative was not chosen due to risk to Company operations, and the additional expense. (2) Replace the on-premise upgrade plan to implement a cloud-based solution. A cloud migration would also take longer to complete, which would put the Company at risk of falling outside of the current vendor support window for the products current version. (3) Upgrade the existing application. This option was selected because it best meets the Company needs for the near future by restoring vendor support for fixes and patches, and enables product scalability to the measure required of business capabilities.																	
DATES (phase end)																			
Initiation		Project Plan & Scope Definition				Final Engineering, Planning & Design				Execution									
9/4/2024		10/7/2024				11/15/2024				1/8/2025									
		In-Service/Go-Live				Closout													
		10/18/2025				11/21/2025													
FUNDING SUMMARY																			
		2024		2025		2026		2027		2028		2029		2030		2031 +		Total	
Cap+COR		-		-		-		-		-		-		-		-		-	
O&M		\$0.007		\$0.777		-		-		-		-		-		-		\$0.784	
Total Cost of Ownership		\$0.007		\$0.777		-		-		-		-		-		-		\$0.784	
		2024		2025		2026		2027		2028		2029		2030		2031 +		Total	
Labor		\$0.007		\$0.726		-		-		-		-		-		-		\$0.733	
Outside Services		-		-		-		-		-		-		-		-		-	
Business Expense/Overheads		-		\$0.051		-		-		-		-		-		-		\$0.051	
Employee Benefits		-		-		-		-		-		-		-		-		-	
Materials		-		-		-		-		-		-		-		-		-	
Licenses, Permits & Fees		-		-		-		-		-		-		-		-		-	
Other		-		-		-		-		-		-		-		-		-	
Total Project Cost		\$0.007		\$0.777		-		-		-		-		-		-		\$0.784	
VALUE & IMPACTS SUMMARY																			
FINANCIAL IMPACTS		2024		2025		2026		2027		2028		2029		2030		2031 +		Total	
O&M		-		-		-		-		-		-		-		-		-	
Reduction		-		-		-		-		-		-		-		-		-	
Initial		\$0.007		\$0.777		-		-		-		-		-		-		\$0.784	
Incremental		-		-		-		-		-		-		-		-		-	
Net		\$0.007		\$0.777		-		-		-		-		-		-		\$0.784	
Cap+COR		-		-		-		-		-		-		-		-		-	
Reduction		-		-		-		-		-		-		-		-		-	
Initial		-		-		-		-		-		-		-		-		-	
Incremental		-		-		-		-		-		-		-		-		-	
Net		-		-		-		-		-		-		-		-		-	
Revenue		-		-		-		-		-		-		-		-		-	
Reduction		-		-		-		-		-		-		-		-		-	
Initial		-		-		-		-		-		-		-		-		-	
Incremental		-		-		-		-		-		-		-		-		-	
Net		-		-		-		-		-		-		-		-		-	
B/C Ratio (Overall)		-1.000																	
Risk Tolerance																			
Corporate Risk		Impact		Likelihood		Description													
OTHER VALUE																			
Type		Description																	
Risk Mitigation		Consumers Energy will lose support on critical ESB software components that support OpenWay Collection Engine, SAP, ITRON, DIV, DRMS, MDM, IWP, PayGo, ADMS, Field Service Solution, and Digital Customer Experience. Rebuilding the ESB Platform and ensuring the current production integrations will not be impacted as well as meeting or exceeding current service levels is critical.																	
Avoided Costs		Consumers Energy will need to purchase an extended support contract with the vendor to maintain support of the older version. Going too long without upgrading puts Consumers at risk of losing any level of support from the vendor. Current estimate is \$80,000 of extended support																	
Capacity		The current implementation of the ESB platform was built with 5 years of growth in mind. Upgrading the ESB on a regularly scheduled cadence will allow Consumers to grow the application around the business' needs.																	

Expense Reporting Improvements		Report Pulled: 11/1/2024		Item ID: 11759					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow			Work Type	Project				
Alias	, Expense Reporting Improvements								
Description	The Expense Reporting Improvements project will increase productivity when creating expense reports; leverage workflows for expense processing and exceptions; improve adherence to company policies; provide insights through improved reporting; and minimize human intervention and struggle throughout the expense process.								
Portfolio	Corporate Services > Financial Services > Controller > General Accounting > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-CORPORATE				
WORK OBJECTIVES									
Problem Statement	Multiple problems exist with our current expense reporting system in the areas of usability, employee engagement, inefficiencies, compliance, and audit exceptions. Submitting expense reports is not intuitive, leading to errors and the need for manual intervention. In addition, employees have to manually scan and attach receipts. All these problems impact employees leading to poor employee engagement scores in regards to simple processes, productivity, and transparency leading to increased costs, inefficiencies, exceptions to policies, and compliance issues. An average of 13% of all expense reports have compliance errors, based on a sample audit of executive assistant submitted expense reports.								
Objectives	This project provides value for the Company by: (1) improving expense policy compliance and reducing exceptions, with a target measure of 0 compliance errors; and (2) offering a more user-friendly experience leading to improved employee engagement. Completion of these objectives would enable each employee to save 20 minutes creating an expense report for each of the 50,175 expense reports created in 2021, the Company would have avoided approximately \$1.5MM of costs, based on a \$90/hr. average rate.								
Scope	The project scope includes implementing a new software tool that: (1) provides upfront validation and controls to improve policy compliance; (2) provides electronic document retention for receipts; and (3) integrates corporate credit card data into expense reports.								
Alternatives	Three alternatives were considered for the project: (1) continue using the current solution; (2) choose a cloud-based solution with the expense reporting component; and (3) develop a custom front-end. The first alternative would result in waste due to the system not being user-friendly; and does not provide mobile options. The second alternative would introduce new licensing and ongoing maintenance costs; would require periodic upgrades and testing; and would require the SAP Enterprise Portal to be upgraded to integrate with the booking tool. The third alternative and selected option would result in improved user experience and employee engagement as well as mobile capabilities around expense entry.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
6/1/2026	7/1/2026 In-Service/Go-Live 5/2/2027		11/1/2026 Closeout 6/30/2027		5/1/2027				
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	-	-	-	\$0.589	\$0.723	-	-	-	\$1.312
O&M	-	-	-	\$0.140	\$0.076	-	-	-	\$0.217
Total Cost of Ownership	-	-	-	\$0.730	\$0.799	-	-	-	\$1.529
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	-	-	-	\$0.280	\$0.310	-	-	-	\$0.590
Outside Services	-	-	-	\$0.290	\$0.300	-	-	-	\$0.590
Business Expense/Overheads	-	-	-	\$0.160	\$0.189	-	-	-	\$0.349
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	-	-	-	\$0.730	\$0.799	-	-	-	\$1.529
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	\$0.140	\$0.076	-	-	-	\$0.217
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	\$0.140	\$0.076	-	-	-	\$0.217
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	\$0.589	\$0.723	-	-	-	\$1.312
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	\$0.589	\$0.723	-	-	-	\$1.312
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-1.000						
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Technology Capability	Administrative & General (A&G) Support								
Risk Mitigation	An average of 13% of all expense reports have compliance errors, based on a sample audit of 2021. The target measure with the completion of this project is 0% compliance errors.								
Avoided Costs	If each employee saved 20 minutes creating an expense report for each of the 50,175 expense reports created in 2021, that equates to ~16,725 hours saved x \$100/hr average rate = \$1.67M of avoided costs due to increased efficiencies.								

Field Contractor Work Management Technology Enablement Report Pulled: 11/1/2024										Item ID: 6740	
EXECUTIVE SUMMARY											
BASIC INFORMATION											
Work Category		Strategic/Grow					Work Type		Project		
Alias		FSS Release 4 - Contractor Enablement									
Description		The project provides the ability to electronically manage contractor work and increases accuracy and timeliness of information processing for field work deliverables. This project additionally creates new opportunities to measure and optimize field work processes supporting customer on-time delivery goals.									
Portfolio		IT Services > Applications > Common Delivery Systems > * > * > *									
Org		CX&T			Bus Unit INFORMATION TECHNOLOGY			Dept		CX&T-IT-WORK MANAGEMENT	
WORK OBJECTIVES											
Problem Statement		Contractor field employees use manual, paper-based processes and generic communication technologies (phone, radio, email, collaboration sites) to perform work for the Company. Due to the non-electronic format, inaccuracy, and delay of information processing there are negative impacts to the availability and accuracy of work status. This limits the opportunity to measure and optimize field work processes that support customer on-time delivery and other goals.									
Objectives		The project will add value by: (1) improving on-time delivery of customer work by providing electronic work order information to contractors; (2) improving customer satisfaction through efficiency in scheduling work and reporting on the progress electronically; (3) increasing safety by tracking work and contractor status providing visibility into the last known location of the contractor; (4) improving material management; (5) making it easier to move emergent work to contractors to balance workloads and meet customer commitments; and (6) enabling real time updates to work order information, increasing data accuracy and reducing invoice reconciliation time.									
Scope		The project scope includes: (1) identifying requirements for a Bring Your Own Device (BYOD) field contractor work management technology solution and process; (2) developing, configuring, and testing interfaces, hardware, and software for the solution; (3) implementing the solution and process for the following work groups: Electric High-Voltage Distribution (HVD), Electric Low-Voltage Distribution (LVD), Mutual Assistance, Forestry, Gas Distribution, Gas Code Compliance, and Substation Operations Construction/Metro; (4) updating the following vendor contract types to support BYOD field contractor work management: zone, specific bid, ancillary, electric storm, and mutual assistance; and (5) training field contractors on the new technology and processes.									
Alternatives		The alternatives considered included: (1) Continue with the current paper-based process. This alternative was not selected because this approach does not allow for the timely, data-driven work management metrics required to improve service to customers. (2) Use the current Company mobile application. This alternative was not selected because the solution is not expected to receive long term investments by the vendor and the mobile application would require more upfront investment than the proposed option. (3) Use off-platform options such as ServiceBench. This alternative was not selected because contractors would not be able to leverage the benefits and integrations with the existing platform and it would require additional new integrations. (4) Provide Company-funded field devices to contractors. This alternative was not selected because the investment in hardware, management of on-boarding and off-boarding of devices to contractors, and training and change management is cost-prohibitive and introduces a risk of the loss of control of information security and corporate assets. Leveraging the existing field work management solution was chosen because it uses existing well-developed functionality while leveraging cloud-based, BYOD capabilities to move short-term and long-term contractors from paper processes to the established, standard work management system.									
DATES (phase end)											
Initiation 1/31/2022		Project Plan & Scope Definition 3/31/2022 In-Service/Go-Live 9/16/2024			Final Engineering, Planning & Design 9/30/2022 Closeout 10/1/2024			Execution 7/31/2023			
FUNDING SUMMARY											
		2021	2022	2023	2024	2025	2026	2027	2028 +	Total	
Cap+COR			\$0.027	\$0.343	\$1.797					\$2.168	
O&M		\$0.243	\$0.218	\$0.023	\$0.141	\$0.508	\$0.508	\$0.508	\$0.508	\$2.656	
Total Cost of Ownership		\$0.243	\$0.245	\$0.367	\$1.938	\$0.508	\$0.508	\$0.508	\$0.508	\$4.824	
		2021	2022	2023	2024	2025	2026	2027	2028 +	Total	
Labor		\$0.229	\$0.082	\$0.098	\$0.654	-	-	-	-	\$1.063	
Outside Services		-	\$0.144	\$0.212	\$0.812	-	-	-	-	\$1.168	
Business Expense/Overheads		\$0.014	\$0.019	\$0.054	\$0.106	-	-	-	-	\$0.193	
Employee Benefits		-	-	-	-	-	-	-	-	-	
Materials		-	-	\$0.003	\$0.366	-	-	-	-	\$0.369	
Licenses, Permits & Fees		-	-	-	-	-	-	-	-	-	
Other		-	-	-	-	-	-	-	-	-	
Total Project Cost		\$0.243	\$0.245	\$0.367	\$1.938	-	-	-	-	\$2.793	
VALUE & IMPACTS SUMMARY											
FINANCIAL IMPACTS											
		2021	2022	2023	2024	2025	2026	2027	2028 +	Total	
O&M	Reduction	-	-	\$(0.144)	\$(0.144)	\$(0.144)	\$(0.144)	\$(0.144)	-	\$(0.719)	
	Initial	\$0.243	\$0.218	\$0.023	\$0.141	\$0.508	\$0.508	\$0.508	\$0.508	\$2.656	
	Incremental	-	-	-	-	-	-	-	-	-	
Net		\$0.243	\$0.218	\$(0.120)	\$(0.003)	\$0.364	\$0.364	\$0.364	\$0.508	\$1.937	
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	-	\$0.027	\$0.343	\$1.797	-	-	-	-	\$2.168	
	Incremental	-	-	-	-	-	-	-	-	-	
Net		-	\$0.027	\$0.343	\$1.797	-	-	-	-	\$2.168	
Revenue	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	-	-	-	-	-	-	-	-	-	
	Incremental	-	-	-	-	-	-	-	-	-	
Net		-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)				-0.865							
Risk Tolerance											
Corporate Risk		Impact	Likelihood	Description							
OTHER VALUE											
Type		Description									
Intangibles		CIE Way* Maturity - The project enables data to be more accessible electronically so that it can be visualized, access to data provides increased visibility to problem solving, and Service Suite forms allow for increased standardization.									
Intangibles		Customer On-time Deliver (COTD) - Provides real-time updates for work order progression and completion, and provides increased efficiency in dispatching work to contractors.									
Intangibles		Electric Reliability - Improves efficiency in dispatching of emergent work to contractors.									
Avoided Costs		Engineering/System Owner Efficiencies: Estimated 1 hour per week @ 50 weeks for 10 system owners ~ 500 hours annually *\$50/hr ~ \$25,000 Annual \$ Saved (Max). Annual \$ Avoided (Min - 75% of Max) ~ \$18,750 * 29.8% (O&M) ~ \$5,588 annual avoided costs									
Avoided Costs		Field Leader & Back End Efficiencies: 1 Hour per week for each long cycle field leaders/back office personnel ~ 200 people*50weeks= 20K hours * \$50/hr ~ \$500K.* Annual \$ Avoided (Min - 75% of Max) ~ \$375K, \$375K * 29.8% (O&M) ~ \$111,750 annual avoided costs - ELECTRIC SPLIT									
Avoided Costs		Field Leader & Back End Efficiencies: 1 Hour per week for each long cycle field leaders/back office personnel ~ 200 people*50weeks= 20K hours * \$50/hr ~ \$500K.* Annual \$ Avoided (Min - 75% of Max) ~ \$375K, \$375K * 29.8% (O&M) ~ \$111,750 annual avoided costs - GAS SPLIT									
Avoided Costs		Increase Back Office Productivity for Contractor Admins: 1 employee for 6 hours a week and 50 weeks per year. Total hours reclaimed annually ~ 300 hours * \$50/hr ~ \$15,000. Annual \$ Avoided (Min - 75% of \$15,000) ~ \$11,250 * 29.8% (O&M) ~ \$3,353.									
Avoided Costs		Increased Productivity for Contractors: 150 hours reclaimed per month * 12 Months a year ~ 1,800 total hours reclaimed annually * rate of \$71.70/hr ~ \$129,060 total. Annual \$ Avoided (Min - 75% of \$139,060) ~ \$96,795 * 29.8 (O&M) ~ \$28,845									
Technology Capability		Work Management									

Field Mapping and Graphics		Report Pulled: 11/1/2024		Item ID: 8771					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Maintain - Condition			Work Type	Project				
Alias	ArcPad Retirement, Field Mapping and Graphics								
Description	This project will implement a solution for the mobile field mapping and data collection that can search and view facility map data, view work order designs, and create work order as-built construction drawings in the field. This software technology increases process efficiency by consolidating field graphics functionality, reducing IT complexity and testing, and increasing adoption in the field through ease of use. In addition, it allows the Company to move to a supported application platform and retire the unsupported ArcPad solution.								
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-WORK MANAGEMENT				
WORK OBJECTIVES									
Problem Statement	The current mapping and graphics application was implemented in 2002 and is no longer sold or supported in any capacity, and the customizations developed for the application cannot be changed. Due to the improved accuracy of the CE landbase (streets, political boundaries, etc.), the outdated electric maps that are referencing that data causes the map to be unreadable which causes a safety issue. Additionally, field employees have considerable challenges when attempting to use the software due to slowness, an aged interface, and dated processes.								
Objectives	The project will add value by: (1) providing more accurate geospatial data, including facility map data, pre-construction designs, and as-built construction drawings; (2) consolidating daily tasks into a more simplified process; (3) eliminating the process waste from duplicating asset data in two systems; (4) enabling the adoption of the Geographic Information System (GIS) standard; and (5) making mapping and graphics data available on field devices.								
Scope	The project scope includes: (1) installing a new mobile field mapping and graphics application; (2) creating the ability to search and view the facility map data in GIS format along with the ability to search by address; (3) viewing pre-construction work order designs in a new GIS format; and (4) creating as-built construction drawings in GIS format for assigned work orders.								
Alternatives	Four alternatives were evaluated and three were determined non-viable for the project: (1) Continue maintaining the current ArcPad application. This option was not selected because the Company is no longer able to make changes to the ArcPad application to mitigate issues if the application has critical defects. A total failure of the application could revert field crews back to paper-based facility maps, risking safety using static, outdated data; or require the creation of as-built construction drawings on paper documents. (2) Use the Adobe or Snagit applications for creating as-built construction drawings. This option was not selected because field users would have to use one solution for viewing facility maps and use rudimentary drawing tools like Adobe or Snagit for creating as-built construction drawings. This option was also not selected because it introduces additional costs due to the complexity and customization needed to integrate the applications. (3) Build a custom Mapping and Graphics solution. This option was not selected as existing industry solutions are available at a much lower cost with much less risk. (4) Implementing the new field mapping and graphics software was selected as this option will consolidate field graphics functionality into an efficient process and provide a current, supported solution.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
1/31/2021	4/30/2021		8/31/2021		6/1/2023				
	In-Service/Go-Live		Closeout						
	6/30/2023		6/30/2023						
FUNDING SUMMARY									
	2020	2021	2022	2023	2024	2025	2026	2027 +	Total
Cap+COR	-	\$0.757	\$1.772	\$1.103	\$0.768	-	-	-	\$4.401
O&M	-	\$0.015	\$0.001	\$0.040	\$0.016	-	-	-	\$0.071
Total Cost of Ownership	-	\$0.771	\$1.773	\$1.143	\$0.784	-	-	-	\$4.471
	2020	2021	2022	2023	2024	2025	2026	2027 +	Total
Labor	-	\$0.438	\$0.299	\$0.312	\$0.463	-	-	-	\$1.513
Outside Services	-	\$0.144	\$1.046	\$0.372	\$0.273	-	-	-	\$1.834
Business Expense/Overheads	-	\$0.189	\$0.427	\$0.458	\$0.048	-	-	-	\$1.122
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	\$0.001	\$0.001	-	-	-	-	\$0.002
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	-	\$0.771	\$1.773	\$1.143	\$0.784	-	-	-	\$4.471
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2020	2021	2022	2023	2024	2025	2026	2027 +	Total
O&M	Reduction	-	\$(0.064)	\$(0.064)	\$(0.064)	\$(0.064)	\$(0.064)	-	\$(0.319)
	Initial	-	\$0.015	\$0.001	\$0.040	\$0.016	-	-	\$0.071
	Incremental	-	-	-	-	-	-	-	-
	Net	-	\$0.015	\$(0.063)	\$(0.024)	\$(0.048)	\$(0.064)	-	\$(0.248)
Cap+COR	Reduction	-	\$(0.149)	\$(0.149)	\$(0.149)	\$(0.149)	\$(0.149)	-	\$(0.743)
	Initial	-	\$0.757	\$1.772	\$1.103	\$0.768	-	-	\$4.401
	Incremental	-	-	-	-	-	-	-	-
	Net	-	\$0.757	\$1.624	\$0.955	\$0.619	\$(0.149)	\$(0.149)	\$3.657
Revenue	Reduction	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-0.796							
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
Technology Obsolescence	High	Medium	Consumers Energy employees are experiencing decline in application performance due to age, which produces the risk of application failure.						
OTHER VALUE									
Type	Description								
Intangibles	Currently, there is a decrease in morale and increase in stress when redlines aren't processed in a timely way or get held up with technology problems. The current process is go back to the crew to inquire if the redline was completed. When this is a system issue, it causes frustration because then the field has to re-do work in the field. Doing this project will improve morale and improve the relationship between management and the Union by reducing administrative pain, human struggle and disagreements, and wasted time repeating work.								
Intangibles	Make OVH (overhead) data available to the field device. The current OVH/CAD files have not been maintained in over five years.								
Intangibles	Make URD (Underground Maps) assets readable on field device. This is currently a safety issue.								
Intangibles	Reduced errors/defects and postings improves Safety by reducing lag time in data updates and if there's a revisit to the Asset. The correct information is on file.								
Risk Mitigation	The application is at risk of failure. It is no longer supported, cannot be upgraded or changed in any manner. Retiring the application and moving to a new application must occur in order for the risk to be removed.								
Technology Capability	Work Management								

Field Network Director		Report Pulled: 11/1/2024		Item ID: 12453					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow			Work Type	Project				
Alias	, Field Network Director								
Description	Design, develop, test and implement Cisco's Field Network Director (FND). FND is a network management solution for Field Area Networks (FAN). The solution is necessary for the management of the modems that have been selected as the new Company standard for modems, as the previous standard modem is no longer being manufactured.								
Portfolio	IT Services > Applications > Electric Delivery Systems > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-TRANS, OPS SUPPORT AND ENG				
WORK OBJECTIVES									
Problem Statement	The modems used for Electric and Gas field device deployments have been discontinued by the manufacturer and the existing inventory will be exhausted by September 2021. After an extensive analysis of 6 modems, a modem was selected as the new standard, replacing the discontinued device. Configuring and managing modems manually is an ongoing, time consuming and labor intensive effort with tasks that include; modem configuration, firmware updates and modem status analytics, exasperated by the need to apply cyber security requirements. With no centralized software to manage the modems: 1) every modem will need to be manually configured, resulting in deployment delays and/or head-count increases; 2) lack of centralized over-the-air device management will introduce increased cyber security risks. Modem management software is required in order to effectively introduce, monitor and manage the new modem type.								
Objectives	Support modem configuration, operations and management with a solution that provides capability to manage the new field based communications devices from a centralized platform.								
Scope	Purchase, install, configure and integrate Citrix's Field Network Manager (FNM) software.								
Alternatives	Alternative 1, Stock and install selected modems without implementation of the FND. This alternative was not selected as manual management of modems will require; 1) Additional FTEs (+1 in 2022, +1 in 2024); 2) cyber security vulnerabilities will not be mitigated; 3) quality will be degraded with many manual steps. Alternative 2, evaluate other hardware vendors was not selected because of the immediate need to replenish modem stock as the previous modem is no longer manufactured and current stock is expected to be depleted in September 2021. Alternative 3, to utilize Citrix Field Network Manager (FNM) Software, which is the most cost effective approach to support existing inventory of modems; support the new standard modems; automation in configuration and management upgrades in firmware, modem status analytics, and cyber security requirements through a centralized platform.								
DATES (phase end)									
Initiation 7/15/2021	Project Plan & Scope Definition 9/30/2021 In-Service/Go-Live 5/13/2022		Final Engineering, Planning & Design 10/29/2021 Closeout 6/15/2022		Execution 4/29/2022				
FUNDING SUMMARY									
	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028 +</u>	<u>Total</u>
Cap+COR	\$0.225	\$0.391	\$0.429	\$0.027	-	-	-	-	\$1,072
O&M	\$0.014	\$0.110	\$0.058	-	-	-	-	-	\$0.183
Total Cost of Ownership	\$0.239	\$0.500	\$0.488	\$0.027	-	-	-	-	\$1,254
	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028 +</u>	<u>Total</u>
Labor	\$0.025	\$0.101	\$0.088	-	-	-	-	-	\$0.214
Outside Services	\$0.043	\$0.244	\$0.318	\$0.089	-	-	-	-	\$0.694
Business Expense/Overheads	\$0.003	\$0.066	\$0.082	\$0.027	-	-	-	-	\$0.177
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	\$0.133	\$0.089	-	\$(0.089)	-	-	-	-	\$0.133
Licenses, Permits & Fees	\$0.036	-	-	-	-	-	-	-	\$0.036
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	\$0.239	\$0.500	\$0.488	\$0.027	-	-	-	-	\$1,254
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028 +</u>	<u>Total</u>
O&M	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.014	\$0.110	\$0.058	-	-	-	-	-	\$0.183
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.014	\$0.110	\$0.058	-	-	-	-	-	\$0.183
Cap+COR	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.225	\$0.391	\$0.429	\$0.027	-	-	-	-	\$1,072
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.225	\$0.391	\$0.429	\$0.027	-	-	-	-	\$1,072
Revenue	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-1.000						
Risk Tolerance									
<u>Corporate Risk</u>	<u>Impact</u>	<u>Likelihood</u>	<u>Description</u>						
Information Theft	High	Medium	Solution will provide enhancements to cyber security through; 1) digital certificates to authenticate devices; 2) device staging/quarantine for newly discovered devices; 3) automated encrypted tunnel creation based on device grouping/tagging and; 4) unique private key certificates per device/tunnel						
OTHER VALUE									
<u>Type</u>	<u>Description</u>								
Intangibles	Centralized and secure, over-the-air device management for both device configuration, firmware and security patches.								
Technology Capability	Improved device health monitoring and reporting capabilities will be leveraged by other initiatives.								
Risk Mitigation	New geo-location capabilities including geo-fencing used to improve field device security.								
Intangibles	Solution will provide enhanced troubleshooting capabilities with edge device awareness.								
Avoided Costs	Without this software, the OT team would need to manually configure and support (patches, firmware upgrades...) all new modems deployed in the field. This would result in deployment delays and/or head-count increases; 2022 - 1 FTE: \$150k + 2023 \$150k 1 FTE.								

Flexible and Advanced Payment Options		Report Pulled: 11/1/2024		Item ID: 9030					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow			Work Type	Project				
Alias	, Flexible/Advanced Payment Options, Flexible and Advanced Payment Options								
Description	The project will address customer concerns regarding existing payment plan options. The effort will create payment plans for customers to increase successful payments and accommodate specific needs of customers requiring assistance paying their energy bill.								
Portfolio	Customer Services > Revenue Management > Payment Channels > Digital Payments > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-CUSTOMER EXP & OPS				
WORK OBJECTIVES									
Problem Statement	Currently, the Company payment arrangement offerings are insufficient or lack flexibility to support the needs of customers. On average, Inability-to-Pay Customers account for 874,000 calls into contact centers to resolve payment plan-related concerns. Existing payment plan options have a 5% success rate. In order to increase customer satisfaction, reduce calls to contact centers, and reduce payment plan defaults the Company needs to offer payment-challenged customers easier and more flexible payment options.								
Objectives	The project creates value to both the Company and its customers through: (1) improved customer experience by ensuring customers can set up payment programs within the channel of their choice (2) reduced defection for repeat callers by enabling customers to be successful in payment programs, (3) reduced active arrears by removing unnecessary risk and offering options based on customers' history, (4) reduced volume of customers entering dunning with successful payment plans, and (5) reduced complaints regarding payment options.								
Scope	The scope of this project includes: (1) identifying changes for new and existing payment plans to increase successful customer payments, (2) updating SAP with eligibility rules for payment plans, (3) updating the customer self-service portal and IVR to align with available payment options and self-service capability, (4) reviewing customer feedback to determine the right payment plans to support their needs, (5) implementing an installment plan guide on the digital platform enabling customers to self-serve and select the best plan for them, and (6) improving input screens for Customer Service Representatives (CSR) surrounding payment plans.								
Alternatives	The alternatives considered include: (1) Enable only CSR resources to set up customized payment plans. This was not selected as the customer is unable to self-serve, preventing call reduction in our contact centers. (2) Utilize a PrePay program for all customers needing payment assistance. This was not chosen as the pilot completed showed limited success as a small portion of customers chose to stay on the program. (3) Implement changes to Payment Assistance plans. This was selected as it provides the customer with multiple options to pay their bill while supporting the Company's cost savings goals.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
10/1/2022	11/28/2022 In-Service/Go-Live 4/17/2023		4/14/2023 Closeout 5/1/2023		4/16/2023				
FUNDING SUMMARY									
	2021	2022	2023	2024	2025	2026	2027	2028 +	Total
Cap+COR	-	\$0.717	\$0.625	-	-	-	-	-	\$1.343
O&M	\$0.180	\$0.135	\$0.054	-	-	-	-	-	\$0.369
Total Cost of Ownership	\$0.180	\$0.852	\$0.679	-	-	-	-	-	\$1.711
	2021	2022	2023	2024	2025	2026	2027	2028 +	Total
Labor	\$0.171	-	\$0.056	-	-	-	-	-	\$0.226
Outside Services	-	\$0.741	\$0.558	-	-	-	-	-	\$1.299
Business Expense/Overheads	\$0.009	\$0.111	\$0.065	-	-	-	-	-	\$0.185
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	\$0.180	\$0.852	\$0.679	-	-	-	-	-	\$1.711
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2021	2022	2023	2024	2025	2026	2027	2028 +	Total
O&M									
Reduction			\$(0.080)	-	-	-	-	-	\$(0.080)
Initial	\$0.180	\$0.135	\$0.054	-	-	-	-	-	\$0.369
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.180	\$0.135	\$(0.027)	-	-	-	-	-	\$0.288
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	\$0.717	\$0.625	-	-	-	-	-	\$1.343
Incremental	-	-	-	-	-	-	-	-	-
Net	-	\$0.717	\$0.625	-	-	-	-	-	\$1.343
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-0.959						
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Technology Capability	Customer Mgmt								
Intangibles	Reduction in active arrears with increased success of customer payments. Decreased payment plan defaults would reduce the customers in dunning and reduce arrears.								

Forward Web Proxy Services				Report Pulled: 11/1/2024				Item ID: 13974			
EXECUTIVE SUMMARY											
BASIC INFORMATION											
Work Category		Maintain - Condition						Work Type		Project	
Alias		Forward Web Proxy Services									
Description		This project will replace the current web proxy service platform with a new platform. A web proxy service is a type of proxy server that sits between a client and the internet. It acts as an intermediary that evaluates, modifies, and forwards the client's requests to the destination web server. This service offers many benefits for the Company such as advanced filtering. Advanced filtering in a forward web proxy service can filter out unwanted or harmful content from the internet, such as malware and phishing. This can protect the client's device and network from cyberattacks and improve their browsing experience. Without advanced filtering, the Company's cyber assets are at risk of attacks such as ransomware.									
Portfolio		Corporate Services > Security Services > Cyber Security & Shared Services > * > * > *									
Org		CX&T			Bus Unit SECURITY			Dept CX&T-SECURITY-CYBER SEC ENG & STAN			
WORK OBJECTIVES											
Problem Statement		The Company currently leverages an existing vendor platform for web proxy services that has been in existence since 2021. Since the implementation of the platform, it has caused ongoing operational issues related to web filtering and connectivity. When there is a degradation of service, company employees and contractors are unable to access internet or cloud-based resources. As the company continues its cloud and SAAS journey, it is imperative to provide consistent access and communication, while still protecting the company from cyber threats.									
Objectives		This project creates value for the Company by (1) increasing service reliability for employees and contractors to internet and cloud-based resources; (2) utilize technology to enable the Company to handle all types of different workloads from varying geographic locations and is highly available; (3) using a mature and scalable web proxy service provider; and (4) providing Zero Trust by continuously verifying every connection request.									
Scope		The project scope includes: (1) replacing the current web proxy services solution and implementing a new system; (2) replacing physical web proxy hardware; and (3) potentially changing SAAS cloud vendors									
Alternatives		The Security team did extensive research on alternative web proxy services solutions. Alternatives considered include: (1) continue to use and maintain the current web proxy services platform. This alternative was not chosen due to the consistent operational issues with the platform that make it unreliable. The result of an unreliable system means that employees and contractors are unable to access business critical services such as email, Teams, ServiceNow, SharePoint Online; (2) Route all internet traffic through the Company's corporate data center. This alternative wasn't chosen because the capabilities of firewalls aren't as effective in stopping sophisticated cyber-attacks as using a web proxy service; (3) replace current system with modern vendor platform for web proxy services. The option that was chosen is to replace the current solution with a new system. This option was chosen because it offers additional features such as browser isolation (the ability to contain web pages so that the web page can't affect the client workstation) and sandboxing (a way to safely execute malicious applications without impacting the Company's network). As part of the evaluation the Company reassessed based on outside advisors and industry trend analysis, focusing on the ability to execute and the vendor's company strategy.									
DATES (phase end)											
Initiation 1/15/2026		Project Plan & Scope Definition 2/15/2026 In-Service/Go-Live 11/15/2026			Final Engineering, Planning & Design 4/15/2026 Closeout 1/30/2027			Execution 6/1/2026			
FUNDING SUMMARY											
		2026	2027	2028	2029	2030	2031	2032	2033 +	Total	
Cap+COR		\$4,482	-	-	-	-	-	-	-	\$4,482	
O&M		\$0,484	\$0,139	\$0,130	\$0,130	-	-	-	-	\$0,883	
Total Cost of Ownership		\$4,965	\$0,139	\$0,130	\$0,130	-	-	-	-	\$5,364	
		2026	2027	2028	2029	2030	2031	2032	2033 +	Total	
Labor		\$0,059	\$0,139	\$0,130	\$0,130	-	-	-	-	\$0,457	
Outside Services		\$0,192	-	-	-	-	-	-	-	\$0,192	
Business Expense/Overheads		\$0,507	\$0,001	-	-	-	-	-	-	\$0,507	
Employee Benefits		-	-	-	-	-	-	-	-	-	
Materials		-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees		\$4,208	-	-	-	-	-	-	-	\$4,208	
Other		-	-	-	-	-	-	-	-	-	
Total Project Cost		\$4,965	\$0,139	\$0,130	\$0,130	-	-	-	-	\$5,364	
VALUE & IMPACTS SUMMARY											
FINANCIAL IMPACTS											
		2026	2027	2028	2029	2030	2031	2032	2033 +	Total	
O&M	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	\$0,484	\$0,139	\$0,130	\$0,130	-	-	-	-	\$0,883	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	\$0,484	\$0,139	\$0,130	\$0,130	-	-	-	-	\$0,883	
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	\$4,482	-	-	-	-	-	-	-	\$4,482	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	\$4,482	-	-	-	-	-	-	-	\$4,482	
Revenue	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	-	-	-	-	-	-	-	-	-	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)		-1.000									
Risk Tolerance											
Corporate Risk	Impact	Likelihood	Description								
Information Theft	High	High	Avoid the cost and disruption of data loss from users, SaaS apps, and public cloud infrastructure due to accidental exposure, theft, or double extortion ransomware.								
Information Theft	High	High	Stop advanced cyberthreats with built-in protections against botnets, command-and-control traffic, risky peer-to-peer sharing, malicious active content, cross-site scripting, fraud sites								
Information Theft	High	High	The ability to know when patient zero phishing attacks are attempting to infiltrate the Company with advanced AI-based inline detection								
Information Theft	High	High	The application will give the ability to know when patient zero phishing attacks are attempting to infiltrate the Company with advanced AI-based inline detection								
Information Theft	High	High	The new solution will have the ability to filter risky and malicious domains and stop the use of DNS tunneling to transfer of malicious payloads and sensitive data								
OTHER VALUE											
Type	Description										
Technology Capability	Browser isolation (the ability to contain web pages so that the web page can't effect the client workstation)										
Technology Capability	Empower employees and contractors to securely access web applications and cloud services from anywhere, on any device--and ensure a great digital experience where applicable in the Company.										
Technology Capability	Increase service reliability for employees and contractors to internet and cloud-based resources for employees and contractors										
Technology Capability	Provide Zero Trust by continuously verifying every connection request										
Technology Capability	Sandboxing (a way to safely execute malicious applications without impacting the Company's network)										
Technology Capability	The new solution will provide more reliable protection against unwanted or harmful content from the internet, such as malware and phishing. This can protect the client's device and network from cyberattacks and improve their browsing experience. Without advanced filtering, the Company's cyber assets are at risk of being attacked by ransomware.										

Gas Compression Digital Work Management				Report Pulled: 11/1/2024				Item ID: 12677			
EXECUTIVE SUMMARY											
BASIC INFORMATION											
Work Category		Strategic/Grow						Work Type		Project	
Alias		ER Mobility, Generation Operations Work Management Mobility, Generation Operations Digital Work Management, Generation Operations And Compression Digital Work Management, Generation Compression Digital Work Management, Compression Digital Work Management, Generation Compression Digital Work Management, Gas Compression									
Description		The project provides work management software and digital forms for Gas Compression facilities.									
Portfolio		Gas Delivery Systems> Gas Operations > IT Projects > IT Projects > * > *									
Org		CX&T			Bus Unit INFORMATION TECHNOLOGY			Dept CX&T-IT-GAS			
WORK OBJECTIVES											
Problem Statement		The current work management process for Gas Compression is cumbersome, largely paper based, and is made up of multiple disconnected systems. This leads to poor visibility, process inefficiency and waste, re-work, regulatory risk, and human error.									
Objectives		This project provides value to the Company through: (1) increased productivity by direct data entry in the field; (2) improved quality through increased accuracy of updates completed at the time and place of the work; (3) elimination of the need to enter data into multiple disconnected systems, and (4) improved safety through access to real-time information used at work sites rather than printed procedures.									
Scope		The scope of the project includes: (1) Merging the existing work management tools into a single work management solution, (2) purchasing licenses to add Gas Compression users to the company's existing mobile work management software, and (3) configuring changes in SAP and the mobile work management software to replace the paper-dependent work management process with the ability to access and update maintenance, operations, and safety information for Gas Compression.									
Alternatives		Alternatives considered include: (1) Utilize an SAP work management mobile solution. An SAP work management solution is not preferred since it is a new solution and requires additional project and support cost. (2) Continue the manual paper-based process. Continuing the manual paper-based process was not chosen because of process waste, re-work, and human error. (3) Customize the existing electronic Shift Operations Management System (eSOMS) mobile application to add work management functions. A custom eSOMS mobile application was not chosen because it would require additional project cost and an ongoing support budget for a custom solution that the eSOMS product was not intended to support. (4) Adopt a cloud based SAAS solution. This option was not selected as it was a high-cost option. (5) Utilize the existing Service Suite solution currently deployed for similar work processes in Gas Transmission. Service Suite is in other Gas and Electric departments. The Service Suite solution is the preferred option because it is a proven solution at the Company and provides the mobility and digital benefits at a lower cost.									
DATES (phase end)											
Initiation		Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution			
1/10/2023		4/30/2023			6/30/2023			2/24/2024			
		In-Service/Go-Live			Closeout						
		2/24/2024			3/31/2024						
FUNDING SUMMARY											
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Cap+COR		-	\$0.878	-	-	-	-	-	-	\$0.878	
O&M		\$0.006	\$0.137	\$0.025	\$0.025	\$0.025	\$0.025	\$0.025	-	\$0.269	
Total Cost of Ownership		\$0.006	\$1.015	\$0.025	\$0.025	\$0.025	\$0.025	\$0.025	-	\$1.147	
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Labor		\$0.006	\$1.015	-	-	-	-	-	-	\$1.020	
Outside Services		-	-	-	-	-	-	-	-	-	
Business Expense/Overheads		\$0.000	\$0.000	-	-	-	-	-	-	\$0.000	
Employee Benefits		-	-	-	-	-	-	-	-	-	
Materials		-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees		-	-	-	-	-	-	-	-	-	
Other		-	-	-	-	-	-	-	-	-	
Total Project Cost		\$0.006	\$1.015	-	-	-	-	-	-	\$1.021	
VALUE & IMPACTS SUMMARY											
FINANCIAL IMPACTS											
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
O&M	Reduction	-	-	\$(0.208)	\$(0.208)	\$(0.208)	\$(0.208)	\$(0.208)	-	\$(1.041)	
	Initial	\$0.006	\$0.137	\$0.025	\$0.025	\$0.025	\$0.025	\$0.025	-	\$0.269	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	\$0.006	\$0.137	\$(0.183)	\$(0.183)	\$(0.183)	\$(0.183)	\$(0.183)	-	\$(0.772)	
Cap+COR	Reduction	-	-	\$(0.021)	\$(0.021)	\$(0.021)	\$(0.021)	\$(0.021)	-	\$(0.103)	
	Initial	-	\$0.878	-	-	-	-	-	-	\$0.878	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	-	\$0.878	\$(0.021)	\$(0.021)	\$(0.021)	\$(0.021)	\$(0.021)	-	\$0.775	
Revenue	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	-	-	-	-	-	-	-	-	-	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)				-0.243							
Risk Tolerance											
Corporate Risk		Impact	Likelihood	Description							
OTHER VALUE											
Type		Description									
Intangibles		Employee Engagement improves as the more tech savvy candidate pool for these positions are looking for mobile tools to help them do their jobs.									
Intangibles		Productivity increases by using electronic work packages and reducing the need to return to desktop kiosks for updates. With the electronic work packages, (1) employees have remote access to manuals such as the Gas Operations Manual for Gas Compression and local maintenance procedures to reference standard work, (2) it eliminates multiple physical hand-offs of work documents related to the work management process and (3) it frees up planners' time to focus on long-range and outage planning to adhere to goals such as the Periodic Factor metric and Gas Flow Deliverability goal for Gas Compression. Productivity can also be tracked and measured for further improvements. This level of tracking is not possible with the current process and information.									
Intangibles		Quality is improved and rework decreases when updates are performed right at the time and place of the work instead of afterwards. For Gas Compression, it (1) eliminates the manual process to update work scope and ensures access to the most up-to-date work order package, (2) allows crews to input SAP Notifications while at the jobsite for improved accuracy of data collected (3) provides the ability to collect asset condition data accurately at the jobsite to feed the data lake for asset health, and allows for the development of electronic code forms with built-in validation to improve quality of compliance data being collected.									
Intangibles		Safety is increased as the most current information is at the work site in the mobile device versus a printed procedure.									
Avoided Costs		The labor savings on time charging on a touchpad versus re-entering time later in office is 10 mins/day/employee savings from the 15 mins/employee per day it currently takes to enter time. Employees currently take 15mins per day to enter time. 59 Gas Compression employees would save 10mins/day = .171hour x 230 work days a year x 59 employees = 2,386.35 hours avoided per year * \$61 Standard Labor Rate = \$140,720.90 Avoided O&M Costs									
Risk Mitigation		The project will mitigate the risk of work errors from using outdated procedures especially for performing Gas Compression code work inspections using electronic forms. Electronic forms will improve validation of required inspection data, thereby reducing the risk of MPSC audit findings and possible regulatory fines. It also reduces safety risk by having the ability to have jobsite access to Emergency Plans to meet corporate safety requirements.									
Avoided Costs		With this project there are avoided costs in Gas Compression from eliminating paper work package assembly. The time for 6 exempt planners is 2 days per month; 8 planners x 2 days x 8 hours = 128 hours per month. The avoided cost for exempt planners is calculated at 128 hours/month x \$48/hour x 12 months = \$73,728 per year. Their capital/O&M split is 25/75 which breaks down to avoiding \$18,432 in capital and \$55,296 in O&M. Six non-exempt admins spend 8 hours/month; 6 admins x 8 hours = 48 hours per month. The avoided cost for non-exempt admins is calculated at 48 hours/month x \$25/hour x 12 months = \$14,400 per year. Their capital/O&M split is 15/85 which breaks down to avoiding \$2,160 in capital and \$12,240 in O&M.									
Technology Capability		Work Management									

Gas Construction Operations Enablement		Report Pulled: 11/1/2024		Item ID: 6722					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow			Work Type	Project				
Alias	EIRP Technology Enablement, Enhanced Infrastructure Replacement Program Technology Enablement, Gas Construction Operations Enablement								
Description	The project will implement an electronic work management solution that will enable Gas Construction Operations employees to assign, manage, and complete field work orders, eliminating the manual processes used. The work management system will also enable improved time tracking and reporting.								
Portfolio	Gas Delivery Systems > Gas Operations > IT Projects > IT Projects > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-OPERATIONS				
WORK OBJECTIVES									
Problem Statement	The Gas Construction Operations department has operated on a paper process for work order completion since their initiation. Originally the work group was to be a temporary workforce; however ongoing improvements for the gas network have extended the need for the department. The current paper process creates additional work to produce and distribute to field operations. Also, the return of the completed paper process has a risk of human errors, lost paperwork, data lags, and readability. These manual processes often require additional contacts to field leaders and field employees to post-verify information. This project will allow the electronic system to automatically process meter orders in SAP, improving accuracy for Customers.								
Objectives	The project will add value by: (1) improving visibility to work locations of crews and job status updates in real time, (2) standardizing employee time-sheet management, (3) reducing closeout time by reducing data entry, (4) eliminating efforts to hand off paper copies of meter work orders, (5) reducing billing processing lag time for customers through direct updates on electronic forms, and (6) improving customer satisfaction with more timely meter installation dates.								
Scope	The scope of the project includes: (1) implementing an electronic work management solution for Gas Construction Operations, (2) enabling Gas Construction employees to assign, manage, and complete field work orders, and (3) developing the interfaces for management of the Gas Construction business unit.								
Alternatives	Alternatives considered include: (1) continuing with the existing paper process, and (2) SAP direct form order entry and completion. These two alternatives were not chosen because manual workarounds will not improve safety or reduce job and administrative time, and SAP does not support entry of information without cellular connectivity. In addition, with direct SAP, a method of work assignment would need to be developed. The electronic work management solution was chosen because it will improve safety and reduce job and administrative time, while supporting information entry without cellular connectivity. This solution is a Company standard which simplifies the implementation and keeps ongoing maintenance costs down.								
DATES (phase end)									
Initiation 2/1/2021	Project Plan & Scope Definition 3/1/2021 In-Service/Go-Live 4/11/2022		Final Engineering, Planning & Design 6/1/2021 Closeout 5/9/2022		Execution 4/4/2022				
FUNDING SUMMARY									
	2021	2022	2023	2024	2025	2026	2027	2028 +	Total
Cap+COR	\$0.249	\$1.604	\$0.003	-	-	-	-	-	\$1.856
O&M	\$0.069	\$0.083	-	\$0.107	\$0.107	\$0.107	\$0.107	-	\$0.579
Total Cost of Ownership	\$0.318	\$1.687	\$0.003	\$0.107	\$0.107	\$0.107	\$0.107	-	\$2.435
	2021	2022	2023	2024	2025	2026	2027	2028 +	Total
Labor	\$0.286	\$0.050	-	-	-	-	-	-	\$0.337
Outside Services	-	\$1.508	-	-	-	-	-	-	\$1.508
Business Expense/Overheads	\$0.032	\$0.129	\$0.003	-	-	-	-	-	\$0.164
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	\$0.318	\$1.687	\$0.003	-	-	-	-	-	\$2.008
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2021	2022	2023	2024	2025	2026	2027	2028 +	Total
O&M									
Reduction		\$(0.020)	\$(0.020)	\$(0.020)	\$(0.020)	\$(0.020)	-	-	\$(0.080)
Initial	\$0.069	\$0.083	-	\$0.107	\$0.107	\$0.107	\$0.107	-	\$0.579
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.069	\$0.063	\$(0.020)	\$0.087	\$0.087	\$0.107	\$0.107	-	\$0.499
Cap+COR									
Reduction	-	\$(0.360)	\$(0.360)	\$(0.360)	\$(0.360)	\$(0.360)	-	-	\$(1.800)
Initial	\$0.249	\$1.604	\$0.003	-	-	-	-	-	\$1.856
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.249	\$1.244	\$(0.357)	\$(0.360)	\$(0.360)	\$(0.360)	-	-	\$0.056
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-0.295						
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Risk Mitigation	Implementing this project will reduce human error and lost paper work by providing an electronic work management solution that will eliminate the manual processes currently being used.								
Technology Capability	Work Management								

Gas Distribution Probabilistic Risk Model				Report Pulled: 11/1/2024				Item ID: 14010			
EXECUTIVE SUMMARY											
BASIC INFORMATION											
Work Category		Strategic/Grow						Work Type		Project	
Alias		, Gas Transmission Probabilistic Risk Model, Gas Distribution Probabilistic Risk Model									
Description		The project will implement a risk analysis model for comprehensive predictive risk analysis and modeling on gas distribution pipeline assets.									
Portfolio		Gas Delivery Systems > Gas Engineering & Supply > IT Projects > IT Projects > * > *									
Org		CX&T			Bus Unit INFORMATION TECHNOLOGY			Dept		CX&T-IT-GAS	
WORK OBJECTIVES											
Problem Statement		Relative risk models are unit-less measures of risk derived from input information using qualitative data and ordinal scales to produce "risk index" scoring; in simple terms, the relative risk model does not provide true statistical measures. The risk assessment used in the current model provides a score for likelihood, consequence, and risk that is relevant only in comparison to other scores. While the outputs provide a sense of relative risk when comparing one pipeline with another, the scores do not provide quantitative scores for probability, frequency, or expected loss of events. Although pipeline operators commonly use relative risk models, the quality of the relative risk ranking relies on subject matter expert inputs, human inferences, and opinions.									
Objectives		Completion of this project will provide value to both the Company and its customers. Each party will benefit from safety improvements and risk mitigation through statistically-based risk modeling that leads to more informed pipeline replacement or improvement projects. Implementing probabilistic risk modelling supports the changes planned for in the Company's Natural Gas Delivery Plan (NGDP), including the Company Gas Management Safety System (GSMS). GSMS incorporates the Company's plan to implement the American Petroleum Institute (API) Recommended Practice 1173 (Pipeline Safety Management Systems). Additionally, the implementation of a probabilistic risk model will: (1) calculate quantitative risk scores that include measures of probability, frequency, or expected loss of events; and (2) configure multiple data sources to make advanced statistical calculations for interacting threats, both of which allow the Company to make more informed decisions based on improved quality inputs in a measurable model; and (3) provide information for better decisions on Capital project improvements and integrity management. Unlike the current unit-less relative model a probabilistic model will be a unit based risk score, specifically in the unit of dollars, improving efficiency in interpreting risk results for business decisions.									
Scope		The project scope encompasses the implementation of a probabilistic risk model for gas distribution. The project will: (1) install and configure risk model; (2) configure multiple data sources; and (3) develop reports and dashboards.									
Alternatives		Alternatives considered for the project include: (1) Implement a custom, Excel-based probabilistic risk model through a consulting effort. This alternative was not selected because although the effort minimizes the IT cost of the project, the model requires the creation of secondary data sources, leading to multiple "sources of truth". (2) Implement a custom built probabilistic risk model. This alternative was not selected because the custom built solutions analyzed are not mature and have not been widely tested with transmission operators. (3) Implement a SaaS based solution. The option of implementing the SaaS probabilistic risk model was chosen because it is the most cost-effective long-term implementation approach, providing commercial, off-the-shelf capabilities, industry-proven and upgradeable technology, and ongoing vendor support.									
DATES (phase end)											
Initiation		Project Plan & Scope Definition				Final Engineering, Planning & Design			Execution		
10/1/2025		10/15/2025				11/15/2025			5/1/2026		
		In-Service/Go-Live				Closeout					
		9/30/2027				10/31/2027					
FUNDING SUMMARY											
		2025	2026	2027	2028	2029	2030	2031	2032 +	Total	
Cap+COR		\$2.431	\$1.040	\$1.040	-	-	-	-	-	\$4.511	
O&M		\$0.026	\$0.068	\$0.107	\$0.102	\$0.102	-	-	-	\$0.405	
Total Cost of Ownership		\$2.458	\$1.108	\$1.146	\$0.102	\$0.102	-	-	-	\$4.916	
		2025	2026	2027	2028	2029	2030	2031	2032 +	Total	
Labor		\$0.217	\$0.427	\$0.424	-	-	-	-	-	\$1.069	
Outside Services		\$0.192	\$0.350	\$0.350	-	-	-	-	-	\$0.892	
Business Expense/Overheads		\$0.248	\$0.330	\$0.372	\$0.102	\$0.102	-	-	-	\$1.154	
Employee Benefits		-	-	-	-	-	-	-	-	-	
Materials		-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees		\$1.800	-	-	-	-	-	-	-	\$1.800	
Other		-	-	-	-	-	-	-	-	-	
Total Project Cost		\$2.458	\$1.108	\$1.146	\$0.102	\$0.102	-	-	-	\$4.916	
VALUE & IMPACTS SUMMARY											
FINANCIAL IMPACTS											
		2025	2026	2027	2028	2029	2030	2031	2032 +	Total	
O&M	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	\$0.026	\$0.068	\$0.107	\$0.102	\$0.102	-	-	-	\$0.405	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	\$0.026	\$0.068	\$0.107	\$0.102	\$0.102	-	-	-	\$0.405	
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	\$2.431	\$1.040	\$1.040	-	-	-	-	-	\$4.511	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	\$2.431	\$1.040	\$1.040	-	-	-	-	-	\$4.511	
Revenue	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	-	-	-	-	-	-	-	-	-	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)		-1.000									
Risk Tolerance											
Corporate Risk		Impact	Likelihood	Description							
OTHER VALUE											
Type		Description									
Technology Capability		Asset Management									
Risk Mitigation		Implementation of a probabilistic risk model mitigates risk through a comprehensive, statistical analysis of threats to pipe segments, ensuring focus on solving the right problems and resolving the highest risk items.									
Risk Mitigation		Prevention of distribution incidents (i.e. home explosions) and avoided cost of these incidents: A probabilistic risk model would increase our ability to identify potential incidents before they occur. An incident such as a home explosion can have a significant impact on the company, including the dollars cost to repair the damage as well as the impact to the public's perception of the Company. It is anticipated that there will be a reduction in the potential for types of incidents with this improved tool. Although the model will not necessarily eliminate the possibility that these types of incidents could occur in the future, the model will reduce the likelihood that they will occur because we have a better understanding of our system. The project investment could avoid actual and reputational costs by potential avoiding one of these incidents. In addition the new model will help better quantify the cost of an incident.									
Intangibles		Quality improvement - Implementation of a probabilistic risk model provides quantifiable results that are more reliable, transparent, and understandable, rather than relatively ranked; improving confidence in data and leading to improved decision-making for strategic planning, financial planning, and regulatory oversight.									
Intangibles		Waste elimination through potential productivity improvements. A true statistical model may eliminate workarounds with the current model that are necessary to support planning efforts by reducing investigation time and increasing user expertise through quantitative analysis and insight to core model functionality.									

Gas Distribution ProjectWise			Report Pulled: 11/1/2024			Item ID: 10681				
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category		Strategic/Grow				Work Type Project				
Alias		, ProjectWise for Gas Distribution, Gas Distribution ProjectWise								
Description		ProjectWise is a suite of project collaboration software for engineering projects currently in use as the Company by gas transmission and generation engineering teams. It is capable of bundling, managing and handling the versions of records and documents related to designs, proposals, contract resources and record-keeping. The Gas Distribution ProjectWise project will expand the implementation of the software to gas distribution and be used to facilitate a management of change process for gas engineering design and gas system configuration changes.								
Portfolio		Gas Delivery Systems> Gas Engineering & Supply > IT Projects> IT Projects > * > *								
Org		CX&T		Bus Unit INFORMATION TECHNOLOGY		Dept CX&T-IT-GAS				
WORK OBJECTIVES										
Problem Statement		SharePoint and a centralized Company data store are currently used as a data warehouse for gas distribution engineering design documentation. The current solution has limited ability to meet the functionality required for managing and approving the files and drawings that are unique to engineering design work. Gaps include: (1) inability to track design edits and document design change authorization approval; (2) inability to manage multiple outage windows and potential impact of planned projects; (3) inability to track gas system configuration changes, both temporary and permanent; (4) no current standardized structure of project documents for ease of viewing/editing; and (5) no current structure for tracking as-built final record completion. In addition, the engineering teams lack an effective tool to centralize the management of change processes for gas engineering design and gas system configuration, leading to unapproved changes to projects without proper knowledge and authorization. Without the proper controls and versioning in place, the opportunity for rework is enhanced causing extended project time for completion, negative impacts on other projects and increased costs.								
Objectives		Completion of this project will provide value to the Company through: (1) comprehensive documentation of all design review changes from key technical Subject Matter Expert (SME) groups, ensuring that the final design is inclusive of all approved changes; (2) end to end workflow tracking and approval sign-off from initial design and engineering through field operations and final sign-off, providing for a centralized historical record that is traceable and verifiable; (3) consistent gas technical records across project and asset lifecycles; (4) increasing public and employee safety and regulatory compliance with complete and accurate records that are readily accessible and easily searchable; (5) providing visibility to and improving tracking for system outage windows and/or temporary pressure changes/reductions providing the ability to align outage schedules with distribution construction schedules; (6) tracking temporary and permanent gas distribution system configuration changes in a centralized repository; (7) maintaining spatial relationships within drawings and documents such that all documents pertinent to a geographic location can be quickly accessed and maintained; (8) providing a universal system of record for complex operating procedures; (9) creating a universal system of record for all construction prints; (10) centralizing tracking of Supervisory Control and Data Acquisition (SCADA) commissioning and decommissioning activities; (11) tracking project as-built and final project record completion; and (12) providing a centralized repository for document retention, archival and version tracking, resulting in records that are traceable and retrievable. Collectively, these items support the Company's implementation of the American Petroleum Institute (API) Recommended Practice 1173 Pipeline Safety and adherence to regulatory requirements. The project provides additional value by implementing a management of change tool with capabilities that can be replicated in other organizations, including gas engineering metering and regulation, gas system integrity, and gas transmission.								
Scope		The scope of this project encompasses implementation of ProjectWise software modules for use by Gas Distribution Engineering. The project will: (1) configure the software modules within the application, and (2) design and develop integrations with other Company systems.								
Alternatives		Alternatives considered include: (1) Continue with current SharePoint and shared data store warehousing solution for versioning of Gas Engineering designs and system outage windows. This alternative was not selected because it does not resolve the identified problems. (2) Develop and implement an in-house solution. This alternative was not selected due to costs and lack of expertise in developing a custom solution. (3) Implement ProjectWise software. This alternative was selected for the following reasons: (1) ProjectWise is available in a Software as a Service (SaaS) solution with out of the box capabilities, and (2) ProjectWise aligns with the Company direction as it has been implemented and is in use in other areas of the Company including Generation and Gas Transmission.								
DATES (phase end)										
Initiation		Project Plan & Scope Definition			Final Engineering, Planning & Design		Execution			
1/1/2022		3/1/2022			7/1/2022		10/3/2022			
		In-Service/Go-Live			Closeout					
		11/30/2022			12/15/2022					
FUNDING SUMMARY										
		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
Cap+COR		-	\$0.699	\$0.162	-	-	-	-	-	\$0.862
O&M		\$0.200	\$0.036	\$0.002	\$0.128	\$0.163	\$0.178	-	-	\$0.708
Total Cost of Ownership		\$0.200	\$0.736	\$0.165	\$0.128	\$0.163	\$0.178	-	-	\$1.570
		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
Labor		\$0.024	\$0.100	\$0.141	-	-	-	-	-	\$0.264
Outside Services		\$0.163	\$0.566	\$0.014	-	-	-	-	-	\$0.743
Business Expense/Overheads		\$0.013	\$0.070	\$0.010	-	-	-	-	-	\$0.093
Employee Benefits		-	-	-	-	-	-	-	-	-
Materials		-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees		\$0.001	-	-	-	-	-	-	-	\$0.001
Other		-	-	-	-	-	-	-	-	-
Total Project Cost		\$0.200	\$0.736	\$0.165	-	-	-	-	-	\$1.101
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS										
		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.200	\$0.036	\$0.002	\$0.128	\$0.163	\$0.178	-	-	\$0.708
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.200	\$0.036	\$0.002	\$0.128	\$0.163	\$0.178	-	-	\$0.708
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	\$0.699	\$0.162	-	-	-	-	-	\$0.862
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	\$0.699	\$0.162	-	-	-	-	-	\$0.862
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)				-1.000						
Risk Tolerance										
Corporate Risk		Impact	Likelihood	Description						
OTHER VALUE										
Type		Description								
Technology Capability		Asset Management								
Risk Mitigation		Implementation of the solution supports the Company's adoption of the American Petroleum Institute (API) Recommended Practice 1173 (Pipeline Safety Management Systems) that is being implemented as part of the Company's Gas Safety Management System.								
Risk Mitigation		Increased public and employee safety and regulatory compliance with complete and accurate records that are readily available through the new solution.								
Risk Mitigation		Mitigate the risk associated with incorrect, incomplete or missing design changes by establishing document retention, archival and version tracking resulting in records that are traceable and verifiable.								
Risk Mitigation		Mitigate the risk with having different versions of engineering designs by providing a single source of truth for Gas Distribution technical records.								
Risk Mitigation		Mitigates the risk of losing or not finding project documents because the new solution has the ability to maintain spatial relationships within drawings and documents such that all documents pertinent to a geographical location can be quickly located and maintained								

Gas Leak Asset and Work Management				Report Pulled: 11/1/2024				Item ID: 6763																			
EXECUTIVE SUMMARY																											
BASIC INFORMATION																											
Work Category		Strategic/Grow						Work Type		Project																	
Alias		GCCP Leak Asset and Work Management, Gas Leak Asset and Work Management																									
Description		The project will implement functionality to automate gas leak compliance tasks and track all gas leak activity in the Gas Geographic Information System (GIS), creating a single system of record for gas leak data, and providing a spatial display of leak data to improve leak management visibility.																									
Portfolio		Gas Delivery Systems > Gas Engineering & Supply > IT Projects > IT Projects > * > *																									
Org		CX&T				Bus Unit		INFORMATION TECHNOLOGY		Dept CX&T-IT-GAS																	
WORK OBJECTIVES																											
Problem Statement		The gas leak process utilizes two systems to complete work and monitor gas leak compliance: SAP and Inspection Manager. Gas leak information is manually transferred between SAP and Inspection Manager and vice versa by compliance technicians. An internal audit identified 7818 leak orders, resulting in a 61% defect rate, with inconsistent information recorded between SAP and Inspection Manager. Lack of quality controls to help ensure accurate leak information across systems may inhibit managements ability to effectively monitor gas leaks and could result in leaks not being re-classified or repaired in a timely manner. This has regulatory compliance and safety impacts such as missed compliance dates which may result in fines and increased public safety risk resulting from untimely or missed leak repairs.																									
Objectives		The project provides value to both the Company and its customers, including: (1) improving productivity and leak location accuracy; (2) enabling near-real time reporting and automated metric reporting on open leak backlog; (3) creating one system of record for all leak assets in GIS; (4) implementing quality improvements for scheduling and routing of leak crews; (5) reducing risk of future audit findings or non-compliance resulting from duplicate open leak orders; (6) optimizing resource allocation for gas service posting team by eliminating manual posting of leak repairs in GIS; (7) optimizing resource allocation for the gas compliance team by eliminating the posting of leak repairs in Inspection Manager; and (8) streamlining the leak survey workflow to improve the human struggle caused by use of paper maps and manual processes for leak order tracking.																									
Scope		The scope of this project includes: (1) design and implementation of an integration between the asset system and the work management system to create, update, and manage leak maintenance, repair, and emergent orders and inspection schedules through the Enterprise Service Bus (ESB) or similar; (2) configuration of new SAP and Service Suite work order completion forms required to support new work processes; (3) updating the business intelligence dataset to support reporting; (4) reconfiguring workflows in Inspection Manager to capture all leak data from GIS; (5) design and implement a solution to replace the use of paper maps in the leak survey process; (6) implementing a workflow to communicate first time and repeated customer contacts for a given leak; (7) implementing an open leak order geospatial map of all open leak orders, utilized across office and field technology; (8) creating a system indicator that flags duplicate leak orders at the same location; and (9) implementing functionality to provide visibility through a listing of all open leak orders within a specified radius.																									
Alternatives		Five alternatives were considered for the project: (1) Implement a Quality Assurance/Quality Control (QAQC) process to ensure data is consistent between both SAP and Inspection Manager. This alternative was not selected because it requires an increase in labor costs for manual reporting and data checks. In addition, as demonstrated by the audit, manual processes, even manual QAQC processes, are subject to human error, and each error creates safety and noncompliance risk. (2) Implement a Robotic Process Automation (RPA) to sync data. This solution was explored but is not viable because the business processes are too complex. (3) Implement a new GIS-based compliance solution that can be integrated with SAP. This alternative is too costly, given recent investment in the current Inspection Manager solution. (4) Defer project implementation. The alternative selected is to implement this project now, rather than later, as a result of recent gas leak red audit findings. (5) Implement functionality to automate gas leak compliance tasks and track all gas leak activity in the GIS. This alternative was selected because it leverages existing solutions in a new way, optimizing resources and technology investment. The use of Cloud technology was not considered due to the enhanced functionality being added to systems and applications that are already on-premise.																									
DATES (phase end)																											
Initiation		Project Plan & Scope Definition				Final Engineering, Planning & Design			Execution																		
11/1/2023		12/12/2023				4/1/2024			11/1/2024																		
		In-Service/Go-Live				Closeout																					
		11/30/2024				12/18/2024																					
FUNDING SUMMARY																											
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total																	
Cap+COR		-	-	-	-	-	-	\$0.050	-	\$0.050																	
O&M		\$0.005	\$0.001	\$0.013	\$0.013	\$0.013	\$0.013	\$0.013	\$0.013	\$0.072																	
Total Cost of Ownership		\$0.005	\$0.001	\$0.013	\$0.013	\$0.013	\$0.013	\$0.063	-	\$0.122																	
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total																	
Labor		\$0.004	\$0.001	-	-	-	-	\$0.050	-	\$0.056																	
Outside Services		\$0.000	-	-	-	-	-	-	-	\$0.000																	
Business Expense/Overheads		\$0.000	\$0.000	-	-	-	-	-	-	\$0.000																	
Employee Benefits		-	-	-	-	-	-	-	-	-																	
Materials		-	-	-	-	-	-	-	-	-																	
Licenses, Permits & Fees		-	-	-	-	-	-	-	-	-																	
Other		-	-	-	-	-	-	-	-	-																	
Total Project Cost		\$0.005	\$0.001	-	-	-	-	\$0.050	-	\$0.056																	
VALUE & IMPACTS SUMMARY																											
FINANCIAL IMPACTS																											
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total																	
O&M		-	-	-	-	-	-	-	-	-																	
Reduction		-	-	-	-	-	-	-	-	-																	
Initial		\$0.005	\$0.001	\$0.013	\$0.013	\$0.013	\$0.013	\$0.013	-	\$0.072																	
Incremental		-	-	-	-	-	-	-	-	-																	
Net		\$0.005	\$0.001	\$0.013	\$0.013	\$0.013	\$0.013	\$0.013	-	\$0.072																	
Cap+COR		-	-	-	-	-	-	-	-	-																	
Reduction		-	-	-	-	-	-	-	-	-																	
Initial		-	-	-	-	-	-	\$0.050	-	\$0.050																	
Incremental		-	-	-	-	-	-	-	-	-																	
Net		-	-	-	-	-	-	\$0.050	-	\$0.050																	
Revenue		-	-	-	-	-	-	-	-	-																	
Reduction		-	-	-	-	-	-	-	-	-																	
Initial		-	-	-	-	-	-	-	-	-																	
Incremental		-	-	-	-	-	-	-	-	-																	
Net		-	-	-	-	-	-	-	-	-																	
B/C Ratio (Overall)				-1.000																							
Risk Tolerance																											
Corporate Risk		Impact	Likelihood	Description																							
OTHER VALUE																											
Type		Description																									
Technology Capability		Asset Management																									
Avoided Costs		Gas Distribution and Service leak classification reasonable expectancy (time estimate for completing the work) would be reduced due to better information being available to find the leak, because the employees will already know where the leak is versus spending time trying to find the leak again. It is estimated that annually approximately 2,500 leak investigation orders are duplicate from already existing leak orders 40% of the leaks are investigated by Distribution crews, and 40% are investigated by service workers. We could save 500 hours in reduced distribution crew labor, and 750 hours in reduced service worker labor. The expectation is that we would reduce the reasonable expectancy by 50% for each duplicate leak classification. 2,500*40%*1 hr*50%= 500 hours saved for distribution crew labor. 2,500*60%*1 hr*50%= 750 hours saved for service worker labor.																									
Intangibles		Implementation of a solution to replace the use of paper maps in the leak survey process will lead to improvements for scheduling and routing of leak crews.																									
Intangibles		Implementation of additional integration between the asset system and work management systems for leak maintenance, repair and inspections will lead to improved productivity allowing gas compliance personnel to focus activity on higher value leak analysis versus time spent on data entry.																									
Risk Mitigation		Implementation of additional integration between the asset system and work management systems will reduce the risk of future audit findings or non-compliance due to a reduction in data inconsistencies between the leak management and work order management applications																									
Risk Mitigation		Implementation of the application changes will reduce the risk of regulatory non-compliance due to a reduction in the duplication of open leak orders.																									
Avoided Costs		Leak Survey Compliance Technician would avoid 12 minutes per order of human struggle searching for new leak orders that should be tied to an already open deferred leak order allowing them to focus on higher priority work with the time saved.																									
Intangibles		Reconfiguring workflows in Inspection Manager to capture all leak data from GIS will enable creating one system of record for all leak assets in GIS.																									
Avoided Costs		Reduce gas compliance technician labor through the reduction in hours to support gas service GIS team by 2,000 hrs for compliance technician (nonempt) to research and link leak repair orders.																									
Avoided Costs		Reduce gas compliance technician labor through the reduction in hours to support gas service GIS team by 4,500 hrs for compliance technician (nonempt) to research and manually link leak classify orders to leak assessment orders in Inspection Manager and SAP.																									
Intangibles		Updating the business intelligence data-set will support more automated reporting on the open leak backlog.																									

Gas Measurement, Regulation, Pipeline, and Storage (MRPS) Report Pulled: 11/1/2024										Item ID: 6755
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Strategic/Grow					Work Type Project				
Alias	FSS Release 4 MRPS, Gas Measurement, Regulation, Pipeline, and Storage Field Work Management Enablement, Gas Measurement, Regulation, Pipeline, and Storage (MRPS) Field Work Management Enablement									
Description	The project will move gas MRPS work orders from the current paper process to an electronic solution that includes work management, compliance scheduling and tracking, mobile dispatch and work completion functions.									
Portfolio	Gas Delivery Systems > Gas Operations > IT Projects > IT Projects > * > *									
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY			Dept	CX&T-IT-OPERATIONS			
WORK OBJECTIVES										
Problem Statement	The current field processes and activities within Transmission Operations are hindered by lack of technology. MRPS does not currently have a technology solution for work order processing, parts ordering, dispatch and scheduling, GPS routing, and access to Company applications. As a result, employees rely on manual paperwork processes, handoffs, and work order management. The current field device could be better utilized if not for technology limitations that hindering customer benefits and employee engagement.									
Objectives	The project will add value by: (1) increasing efficiency of order entry and management reporting through a digital solution rather than paperwork handoffs; (2) maintaining key compliance records without depending on paper processes and records; (3) improving productivity by eliminating the duplication waste of managing asset and compliance records management using paper binders; (4) reducing risk of MPSC non-compliance by digitizing system data, making it readily available for review and analysis by leadership; (5) increasing visibility to asset health using data available from a digital system to enable reporting and analysis; and (6) improving Safety by reducing risk to gas storage assets and adherence to standards by moving to digital systems and data. This enables future Safety initiatives such as a monthly well monitoring program that ensures accurate and timely data capture for identification and mitigation of asset risk, analysis, and data trending.									
Scope	The project scope includes: (1) SAP updates to enable gas MRPS work processes; (2) prioritizing agile methodology to evaluate and convert paper forms (up to 75 for compliance work, up to 75 for work order completion); (3) alignment of use with the compliance scheduling and tracking solution on routing and documenting work, tracking time, and work order costing; and (4) development of Training materials and train-the-trainer activities.									
Alternatives	Alternatives considered include: (1) utilize an SAP module to migrate field work orders to an electronic platform; (2) implement a new solution - Field Manager Solution, Go Canvas, ESRI, and Smart Sheet were evaluated; (3) continue manual paper-based process currently used by the gas MRPS work force; and (4) implement a Service Suite solution. The first alternative was not selected because it did not offer a scheduling solution or support information entry in offline setting, location and time tracking would need added integration, and a method of assignment and dispatch would need to be developed. The second alternative was not selected because the ad hoc applications that were evaluated were significant deviations from the field work management standard solution, reducing field crew usability through lack of integration and user adoption while increasing support complexity and cost. The third alternative was not selected because it does not eliminate the current process waste, rework, and human error risk. The alternative to implement the Service Suite solution was selected because it is the current field work management standard, providing work management scheduling capabilities, real time validation of field work order forms, and proven field crew adoption and usability resulting from four years of Service Suite usage by 2000+ Company field crews.									
DATES (phase end)										
Initiation 1/4/2021	Project Plan & Scope Definition 1/31/2021 In-Service/Go-Live 11/30/2022				Final Engineering, Planning & Design 2/28/2021 Closeout 12/23/2022			Execution 11/15/2022		
FUNDING SUMMARY										
		2021	2022	2023	2024	2025	2026	2027	2028 +	Total
Cap+COR		\$1.071	\$1.564	\$0.001	-	-	-	-	-	\$2.636
O&M		\$0.010	\$0.001	-	\$0.100	\$0.100	\$0.100	\$0.100	-	\$0.412
Total Cost of Ownership		\$1.081	\$1.565	\$0.001	\$0.100	\$0.100	\$0.100	\$0.100	-	\$3.047
		2021	2022	2023	2024	2025	2026	2027	2028 +	Total
Labor		\$0.758	\$0.143	-	-	-	-	-	-	\$0.901
Outside Services		\$0.212	\$1.264	-	-	-	-	-	-	\$1.476
Business Expense/Overheads		\$0.111	\$0.159	\$0.001	-	-	-	-	-	\$0.270
Employee Benefits		-	-	-	-	-	-	-	-	-
Materials		-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees		-	-	-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-	-	-
Total Project Cost		\$1.081	\$1.565	\$0.001	-	-	-	-	-	\$2.647
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS										
O&M		2021	2022	2023	2024	2025	2026	2027	2028 +	Total
	Reduction	-	\$(0.014)	\$(0.014)	\$(0.014)	\$(0.014)	\$(0.014)	-	-	\$(0.068)
	Initial	\$0.010	\$0.001	-	\$0.100	\$0.100	\$0.100	\$0.100	-	\$0.412
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.010	\$(0.012)	\$(0.014)	\$0.086	\$0.086	\$0.086	\$0.100	-	\$0.343
Cap+COR		2021	2022	2023	2024	2025	2026	2027	2028 +	Total
	Reduction	-	\$(0.048)	\$(0.048)	\$(0.048)	\$(0.048)	\$(0.048)	-	-	\$(0.242)
	Initial	\$1.071	\$1.564	\$0.001	-	-	-	-	-	\$2.636
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$1.071	\$1.516	\$(0.047)	\$(0.048)	\$(0.048)	\$(0.048)	-	-	\$2.394
Revenue		2021	2022	2023	2024	2025	2026	2027	2028 +	Total
	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-0.913								
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									
Intangibles	CE Way Maturity - The project enables data to be more accessible electronically so that it can be visualized, access to data provides increased visibility to problem solving, and Service Suite forms allow for increased standardization									
Intangibles	Gas Technical Information Excellence (GTIE) Records Accuracy - The project enables real-time record updates and increased accuracy.									
Avoided Costs	Safety and Productivity - Measurement and Regulation: 25min/day increase in productivity = \$40K O&M Avoid Costs									
Avoided Costs	Safety and Productivity - Pipeline: 25min/day increase in productivity = \$63K O&M Avoided Costs									
Avoided Costs	Safety and Productivity: Storage - 25min/day increase in productivity = \$74K O&M Avoid Costs									
Risk Mitigation	This program will enable alignment with Underground Gas Storage industry for acceptable gas storage well monitoring program / practices in adherence to API171 RP. In addition, doing this project reduces MPSC non-compliance fees, reducing the risk of these fees to the company.									
Technology Capability	Work Management									

Gas SCADA Software Solution			Report Pulled: 11/1/2024			Item ID: 6756				
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Strategic/Grow					Work Type	Project			
Alias	Gas SCADA System, Gas SCADA Software Solution									
Description	The Gas Supervisory Control And Data Acquisition ("SCADA") software solution project will replace the current Gas SCADA Software with a more standardized software package enabling the Company to more efficiently meet Federal and MPSC requirements.									
Portfolio	Gas Delivery Systems > Gas Engineering & Supply > IT Projects > IT Projects > * > *									
Org	CX&T		Bus Unit INFORMATION TECHNOLOGY			Dept	CX&T-IT-APPLICATION PLATFORMS & SER			
WORK OBJECTIVES										
Problem Statement	The current Gas SCADA software solution was originally implemented in 2000 and was based on the gas system requirements at that time. While the solution has been maintained since its implementation, the Company's gas system has outgrown the current capabilities. As the solution ages, there is increased effort required to address obsolete application and database software architecture, and enhancements to the system are limited. To address the capability gaps, custom interim fixes and integrations have been developed where each requires maintenance and support. This environment adds complexity and cost to solution upgrades and troubleshooting issues. The current Gas SCADA solution will limit the ability to invest in digital solutions for increased system health monitoring and preventative maintenance capabilities due to the complexity to integrate these future capabilities with it.									
Objectives	The project will add value by: (1) reducing risk of non-compliance by improving the ability to document and follow State and Federal requirements, improving customer safety; (2) improving efficiency and reliability when performing routine software upgrades, because standard out-of-the-box software has less risk of breaking during upgrades, as opposed to more custom-coded software; (3) reducing maintenance costs due to fewer individual software programs and less custom code; (4) improving Gas Control management capabilities that support the Federal and MPSC requirements for gas pipeline and Gas Distribution companies; (5) improving reliability by using proven gas industry standardized software with configuration features, rather than a fully customized system that has the possibility of being impacted by the next version update; (6) purchasing standard, out-of-the-box software that meets a high percentage of requirements and avoids multiple custom applications and specially coded programs to achieve results; and (7) providing a basis for capturing data required for use in computer-based preventative maintenance programs and more predictive technologies. In addition, implementing industry-specific software helps the collective gas industry users to encourage the vendor development of future version enhancements, which adds more value to gas industry users. The comprehensive Gas SCADA system is used to monitor and control the operating conditions of the transmission and distribution gas systems. The Gas SCADA system includes remote terminal units (RTUs), field devices (i.e. valves, meters, orifiers), and computers running SCADA software. This scope covers the Gas SCADA software solution only.									
Scope	The project scope includes the following: (1) significant planning, including consulting assistance, to define the implementation strategy for the effort, given the magnitude of the technology effort; (2) selection and implementation of a new Gas SCADA software solution; (3) planning of a phased rollout of new hardware and software; and (4) retirement and decommissioning of the legacy gas SCADA solution and equipment once the new system is fully tested and operational.									
Alternatives	Alternatives considered include: (1) continue to maintain the current solution, at the risk of increasing reliability issues that result in controlling and monitoring the Company's gas system; (2) invest in enhancing the existing Gas SCADA software solution which would introduce additional custom development and more specialized functions that may not be supported in future vendor releases; and (3) replace the solution with a gas SCADA software solution that meets requirements to support the NGDP. Alternative three has been selected to ensure sustainability for this critical solution. The current legacy system is operating at well beyond its original design specifications, so the potential points of failure are not fully known or understood. If the SCADA project is not completed, the legacy system could become unstable and impact Gas Control's ability to operate and monitor real-time system conditions, maintain safe operations, and compliance with regulatory requirements. It could also impact the ability to commission new facilities which require remote monitoring or control or cause the need for 24/7 manual field monitoring of certain facilities.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution			
1/1/2022	10/31/2023			5/30/2024			6/24/2024			
	In-Service/Go-Live			Closeout						
	11/30/2025			12/15/2025						
FUNDING SUMMARY										
Cap+COR		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
			\$1,950	\$8,028	\$8,039	-	-	-	-	\$18,016
O&M		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
			\$0.632	\$0.161	\$0.481	\$1,032	\$0.300	\$0.300	\$0.300	\$3,595
Total Cost of Ownership			\$0.632	\$2,111	\$8,508	\$9,071	\$0.300	\$0.300	\$0.300	\$21,521
Labor		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
			\$0.045	\$0.203	\$1,386	\$1,113	-	-	-	\$2,747
Outside Services		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
			\$0.221	\$4,958	\$4,952	-	-	-	-	\$9,231
Business Expense/Overheads		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
			\$0.587	\$0.032	\$0.468	\$1,264	-	-	-	\$2,351
Employee Benefits		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
			-	-	-	-	-	-	-	-
Materials		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
			-	\$0.947	\$1,026	\$0,174	-	-	-	\$2,147
Licenses, Permits & Fees		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
			-	\$0.709	\$0,669	\$2,467	-	-	-	\$3,845
Other		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
			-	-	-	-	-	-	-	-
Total Project Cost			\$0.632	\$2,111	\$8,508	\$9,071	-	-	-	\$20,321
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS										
O&M		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
			-	-	-	-	-	-	-	-
Reduction		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
			-	-	-	-	-	-	-	-
Initial		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
			\$0.632	\$0.161	\$0.481	\$1,032	\$0.300	\$0.300	\$0.300	\$3,595
Incremental		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
			-	-	-	-	-	-	-	-
Net		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
			\$0.632	\$0.161	\$0.481	\$1,032	\$0.300	\$0.300	\$0.300	\$3,595
Cap+COR		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
			-	-	-	-	-	-	-	-
Initial		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
			-	\$1,950	\$8,028	\$8,039	-	-	-	\$18,016
Incremental		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
			-	-	-	-	-	-	-	-
Net		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
			-	\$1,950	\$8,028	\$8,039	-	-	-	\$18,016
Revenue		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
			-	-	-	-	-	-	-	-
Initial		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
			-	-	-	-	-	-	-	-
Incremental		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
			-	-	-	-	-	-	-	-
Net		2022	2023	2024	2025	2026	2027	2028	2029 +	Total
			-	-	-	-	-	-	-	-
B/C Ratio (Overall)				-1.000						
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
Technology Obsolescence	Medium	Medium	Server and Network Architecture is not current and does not meet current business needs due to: (1) SCADA Software and Operating System limitations require operation of Client SCADA under a remote session with administrative privileges which increases security risk; (2) SCADA Input/Output (I/O), SCADA Trend, and SCADA Alarm processes are hosted on the server as individual executables rather than services; and (3) SCADA functionality is hosted on a single server (with remote redundancy). Additional inefficiencies with the current solution include: (1) SCADA Services for Human Machine Interface (HMI), I/O, Trend, Alarm, Report; (2) the Services for Gas Control Procedure Documents, SCADA Configuration and Procedure Documents; (3) database Services - Reports, SCADA Configuration, SCADA HMI Configuration, SCADA HMI Navigation; (4) failure to Backup SCADA I/O requires manual processes and increases overall system outage time; and (5) current configuration is not appropriate for migration to an off-site data center							
OTHER VALUE										
Intangibles	Date		Description							
Intangibles			A new SCADA software solution offers ability to: (1) improve On Screen Data quality; (2) implementation of Alarm Prioritization based on alarm severity; (3) GIS integration; (4) ability for schematic diagrams to include direction of flow; and (5) use of better screen resolution							
			Energy Portfolio Planning							
Avoided Costs			Gas Controller workload reduction due to the enhanced capabilities described within the new standardized software would be realized. New software functionality includes the ability to input data for log/archive purposes within the SCADA user interface. Current Controller documentation software, which exists on a separate corporate system and requires the Controller to move between secure SCADA environment and corporate computer systems, could be incorporated as a single working environment with the new SCADA system. Assumption is that Control Room is 24x7, 3 controllers x 24 hours x 10 min/hr time saved							
Risk Mitigation			Implementation of a new SCADA software solution will mitigate the risk that our current SCADA solution may limit our ability to modernize the remote terminal unit (RTU) and electrical systems at city gates and regulator stations due to the customization that may be required to support this new equipment.							
Risk Mitigation			Implementation of a new SCADA software solution will mitigate the risk with our current SCADA solution encountering performance issues as additional SCADA installations are completed at regulator stations. The Over Pressure Protection (OPP) program plans to install SCADA at 16-22 stations annually to reduce the possibility of MAOP (Maximum Allowable Operating Pressure) excursions. The program has yielded past success as being partly responsible for decreasing the number of MAOP excursions from over 100 annually to 1 in 2019.							
Risk Mitigation			The current SCADA software solution requires changes to be performed in a linear fashion, which will create greater risk in implementing the Natural Gas Delivery Plan initiative for adding remote control monitoring capabilities and accelerating the retirement of vintage materials							
			Upgrade or replacement of the old Gas SCADA software solution will improve stability and help to avoid issues with lost and unrecoverable data which could be considered non-compliant in reporting to the MPSC.							

Gas Storage Probabilistic Risk Model				Report Pulled: 11/1/2024				Item ID: 10513			
EXECUTIVE SUMMARY											
BASIC INFORMATION											
Work Category		Strategic-Grow						Work Type		Project	
Alias		Gas Storage Probabilistic Risk Model									
Description		The Gas Storage Probabilistic Risk Model project will implement a risk analysis model for comprehensive predictive risk analysis and modeling on gas storage wells.									
Portfolio		Gas Delivery Systems > Gas Engineering & Supply > IT Projects > IT Projects > * > *									
Org		CX&T				Bus Unit INFORMATION TECHNOLOGY				Dept CX&T-IT-GAS	
WORK OBJECTIVES											
Problem Statement		The current Gas Storage model is a relative risk model that equates risk to dollars from input information using qualitative data and ordinal scales to produce a "risk ranking". In simple terms, the relative risk model is not capable of creating a statistically significant result. The risk assessment used in the current model provides a ranking for likelihood, consequence, and risk that is relevant only in comparison to other rankings. While the outputs provide a sense of relative risk when comparing one well to another, the ranks do not provide anything qualitative that relates to the failure of wells. Also, the current transmission model does not meet the requirements of the MPSC, as indicated in a letter of noncompliance (dated January 15, 2019), and rule-making for storage systems has historically followed transmission rule-making. Lastly, the current model introduces risk in PHMSA findings as a non-probabilistic model.									
Objectives		Completion of this project will provide value to both the Company and its customers. Each party will benefit from safety improvements and risk mitigation through statistically-based risk modeling that leads to more informed well improvement projects and improved targeted plug and abandonment projects. Implementing probabilistic risk modelling supports the changes planned for in the Company's Natural Gas Delivery Plan (NGDP), including the Company Gas Management Safety System (GSMS). GSMS incorporates the Company's plan to implement the American Petroleum Institute (API) Recommended Practice 1173 (Pipeline Safety Management Systems). Additionally, the implementation of a probabilistic risk model will: (1) calculate quantitative risk scores that include measures of probability, frequency, or expected loss of events, and (2) configure multiple data sources, to make advanced statistical calculations for interacting threats, both of which allow the Company to make more informed financial and strategic decisions based on improved quality inputs and mitigate the risk of PHMSA findings. The probabilistic model will rank the wells in risk-associated dollars making it easier to interpret risk results for the purpose of making business decisions. Furthermore, the Pipeline and Hazardous Materials Safety Administration (PHMSA) has identified the probabilistic risk model as a potential best practice for storage operators over other risk models (PHMSA Pipeline Risk Modeling white paper, dated May 9, 2018), so the project adds value by aligning with industry best practices.									
Scope		The project scope encompasses the implementation of a probabilistic risk model for gas storage wells. The project will: (1) install and configure risk model; (2) configure multiple data sources; and (3) develop reports and dashboards.									
Alternatives		Alternatives considered include: (1) continue the use of the relative risk model, but invest in substantial effort to continually manually managing data inputs and quality checks (2) implement a custom, Excel-based probabilistic risk model through a consulting effort; (3) implement an on-premise probabilistic risk model; and (4) implement a cloud-based model. The first alternative was not selected because although the manual effort is possible, it is becoming increasingly difficult to complete as the model utilizes more data sources that need to be annually updated and validated. The second alternative was not selected because although the effort minimizes the IT cost of the project, the model requires the creation of secondary data sources, leading to multiple "sources of truth". The on-premise solutions analyzed are not mature and have not been widely tested with transmission operators, so alternative three was not selected. The fourth alternative of implementing the cloud-based probabilistic risk model was chosen because it is the most cost-effective long-term implementation approach, providing commercial, off-the-shelf capabilities, industry-proven technology, and an ongoing vendor support and upgraded model.									
DATES (phase end)											
Initiation		Project Plan & Scope Definition				Final Engineering, Planning & Design				Execution	
1/3/2023		3/1/2023				7/31/2023				8/31/2024	
		In-Service/Go-Live				Closeout					
		9/30/2024				10/31/2024					
FUNDING SUMMARY											
		2022	2023	2024	2025	2026	2027	2028	2029 +	Total	
Cap+COR		-	\$0.908	\$0.620	-	-	-	\$0.050	-	\$1.578	
O&M		-	\$0.115	\$0.010	\$0.103	\$0.103	\$0.103	\$0.020	-	\$0.456	
Total Cost of Ownership		-	\$1.023	\$0.630	\$0.103	\$0.103	\$0.103	\$0.070	-	\$2.034	
		2022	2023	2024	2025	2026	2027	2028	2029 +	Total	
Labor		-	\$0.003	\$0.031	-	-	-	\$0.070	-	\$0.104	
Outside Services		-	\$0.466	\$0.566	-	-	-	-	-	\$1.032	
Business Expense/Overheads		-	\$0.023	\$0.033	-	-	-	-	-	\$0.056	
Employee Benefits		-	-	-	-	-	-	-	-	-	
Materials		-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees		-	\$0.532	-	-	-	-	-	-	\$0.532	
Other		-	-	-	-	-	-	-	-	-	
Total Project Cost		-	\$1.023	\$0.630	-	-	-	\$0.070	-	\$1.723	
VALUE & IMPACTS SUMMARY											
FINANCIAL IMPACTS											
		2022	2023	2024	2025	2026	2027	2028	2029 +	Total	
O&M	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	-	\$0.115	\$0.010	\$0.103	\$0.103	\$0.103	\$0.020	-	\$0.456	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	-	\$0.115	\$0.010	\$0.103	\$0.103	\$0.103	\$0.020	-	\$0.456	
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	-	\$0.908	\$0.620	-	-	-	\$0.050	-	\$1.578	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	-	\$0.908	\$0.620	-	-	-	\$0.050	-	\$1.578	
Revenue	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	-	-	-	-	-	-	-	-	-	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)		-1.000									
Risk Tolerance											
Corporate Risk		Impact	Likelihood	Description							
OTHER VALUE											
Type		Description									
Technology Capability		Asset Management									
Avoided Costs		Assumes 540 hours in annual avoided labor due to reduced labor efforts in Gas Engineering & Supply areas for running existing risk models. The new model decreases 10-15 hours of data management and analysis per well, and assumes about 40-50 wells per year. The relative risk model utilizes large sets of data that are not consumed by any other company stakeholders. These are scoring-based data sets that are updated every five years there is a change to the pipeline and periodically throughout the year. It is estimated that approximately 540 hours a year are spent updating these data sets, which can be avoided after the new model is implemented.									
Risk Mitigation		Implementation of a probabilistic risk model mitigates risk through a comprehensive, statistical analysis of threats to wells, ensuring focus on solving the right problems and resolving the highest risk items.									
Risk Mitigation		Prevention of wells failures and voided cost of ruptures: A probabilistic risk model would increase our ability to identify potential failures before they occur. A failure such as a well blowout can have a significant impact on the company, including the dollar cost to repair the damage as well as the impact to the supply of gas to the system and the public's perception of the Company and would cause a major unplanned release of methane. It is anticipated that there will be a reduction in the likelihood of these types of failures with this improved tool. Although the model will not necessarily eliminate the possibility that these types of ruptures will occur in the future, the model will reduce the likelihood that they will occur because we will have a better understanding of our system. The project investment could avoid large unplanned methane releases, actual costs, and reputational costs by potentially avoiding one of these failures, which has been estimated to cost the Company over \$300 million. In addition, the new model will help better quantify the cost of a blowout.									
Intangibles		Quality improvement - Implementation of a probabilistic risk model provides quantifiable results that are more reliable, transparent, and understandable, rather than relatively ranked; improving confidence in data and leading to improved decision-making for strategic planning, financial planning, and regulatory oversight.									
Intangibles		Waste elimination through potential productivity improvements. A true statistical model may eliminate manual efforts that are necessary to populate and maintain the current excel-based model by pulling from populated databases that are centrally maintained by the data owners instead of a singular person.									

Gas T&D Historian		Report Pulled: 11/1/2024		Item ID: 6757					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow			Work Type	Project				
Alias	OISoft PI Historian, Gas Historian Implementation, GAM Historian								
Description	The Gas Transmission and Distribution (T&D) Historian project will replace the current historian for Gas T&D, eDNA (a traditional Supervisory Control and Data Acquisition (SCADA) historian product from Schneider Electric), and migrate to the standard OISoft PI enterprise historian system. The PI system is a suite of software products that are used to collect, store, view, analyze, and share operational data with system users and subject matter experts.								
Portfolio	Gas Delivery Systems > Gas Engineering & Supply > IT Projects > IT Projects > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-APPLICATION PLATFORMS & SEI				
WORK OBJECTIVES									
Problem Statement	The historian for Gas Transmission and Distribution resides on a decades old platform and is not the Company's historian standard. Data access is cumbersome, requires multiple tools to access it, and does not provide for the storing, analysis or visualization of operational data in a timely manner with appropriate change management control. With the implementation of smart meters, the Company standardized on the more robust OISoft PI historian which is used for: (1) Renewable Generation; (2) Electric T&D; and, (3) Smart Energy. The Gas T&D historian has yet to be migrated to OISoft PI, and the eDNA gas data has limited accessibility and usability in its current state and is no longer supported by the vendor. In addition, maintaining the older platform along with the new system requires duplicate resources and skills. This project will create a more accessible and centralized data source with better controls that can be leveraged as the system of record.								
Objectives	The project will add value for both Gas Engineering and Gas Operations organizations within the Company by: (1) informing decision-making based on real-time data; (2) improving real-time situational awareness of Operations personnel for information that does not need to be monitored by Gas Control; (3) improving the ability to respond to abnormal situations that do not require immediate intervention through that direct communication to Operations personnel; (4) providing information for the development of proactive analytics to reduce potential catastrophic events; (5) streamlining data access through visualization and analytics; and (6) reducing the waste of using multiple interfaces to interpret data. From an IT perspective, consolidating to one standard historian platform will result in savings in hardware, software, maintenance, resources and training.								
Scope	This scope of this project includes: (1) replacing the eDNA Gas T&D historian, a traditional SCADA historian, and migrating to the enterprise historian, OISoft PI; (2) developing analytics, visualization and reporting capabilities to support tracking of metrics and making operational decisions; (3) replacing the decades-old Microsoft Access-based custom Daily Gas Reports solution; and (4) retiring the legacy Gas T&D eDNA system (hardware and software).								
Alternatives	An alternative considered for the project was to upgrade eDNA Gas Historian to the latest version. This option was not selected because it requires a significant investment, and does not meet analytics, reporting and accessibility needs as well as the software owner has announced the "sunset," for this software. Furthermore, the Company standard for historians is OISoft PI and maintaining two platforms results in redundant efforts in training, support personnel and technology. The option to replace eDNA with the Company standard OISoft PI historian was selected to eliminate duplicate training, support personnel, and technology, and to leverage the more robust data analytic capabilities in the OISoft PI tool set. Currently the plan is to implement the Gas T&D Historian with the Gas SCADA Software Solution to eliminate the need to have duplicate historians while the Gas SCADA Software Solution is being implemented. If this project is not completed, an interruption of our operational data reporting capabilities could occur and could result in a non-compliance and could potentially interrupt certain volumetric accounting and billing functions.								
DATES (phase end)									
Initiation 4/15/2024	Project Plan & Scope Definition 5/27/2024 In-Service/Gas-Live 12/1/2025		Final Engineering, Planning & Design 6/10/2024 Closeout 12/8/2025		Execution 7/15/2024				
FUNDING SUMMARY									
Cap+COR	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	-	\$0.733	\$0.764	-	-	-	-	-	\$1.496
Total Cost of Ownership	-	\$0.817	\$0.492	\$0.237	\$0.237	\$0.220	-	-	\$1.203
	-	\$0.750	\$1.255	\$0.237	\$0.237	\$0.220	-	-	\$2.699
Labor	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Outside Services	-	\$0.119	\$0.420	-	-	-	-	-	\$0.540
Business Expense/Overheads	-	-	\$0.200	-	-	-	-	-	\$0.200
Employee Benefits	-	-	\$0.044	\$0.228	-	-	-	-	\$0.271
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	\$0.141	\$0.141	-	-	-	-	-	\$0.281
Other	-	\$0.446	-	-	-	-	-	-	\$0.446
Total Project Cost	-	\$0.750	\$0.988	-	-	-	-	-	\$1.738
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
O&M	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Reduction	-	\$0.017	\$0.492	\$0.237	\$0.237	\$0.220	-	-	\$0.203
Initial	-	\$0.017	\$0.492	\$0.237	\$0.237	\$0.220	-	-	\$1.203
Incremental	-	-	-	-	-	-	-	-	-
Net	-	\$0.017	\$0.441	\$0.087	\$0.237	\$0.220	-	-	\$1.002
Cap+COR	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Reduction	-	\$0.017	\$0.492	\$0.237	\$0.237	\$0.220	-	-	\$0.203
Initial	-	\$0.733	\$0.764	-	-	-	-	-	\$1.496
Incremental	-	-	-	-	-	-	-	-	-
Net	-	\$0.733	\$0.764	-	-	-	-	-	\$1.496
Revenue	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-0.934						
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
Gas Distribution System	High	Low	Avoid misstating cost of gas sold reducing company reputation risk. PI provides better controls for daily reporting and analysis, which reduces risk of misstating the cost of gas sold. The financial risk of misstating the cost of gas sold is \$3,150,000 a year.						
			This scenario: - Current CMS revenue of \$6 billion - Misstated cost of gas sold was \$0.000,000 - Misstated cost of gas was ~10% expense threshold for having to restate financials - 282.5 million stock volume * \$44.63 stock price (\$15.2018) - 1% probability of misstatement occurring - 50% probability being required to restate financials - 5% stock price last (this occurred since 2001) 282.5 million * \$44.63 = \$12.6 billion \$12.6 billion * 5% = \$630,000,000 \$630,000,000 * 1% = 50% = \$3,150,000						
			eDNA is multiple versions behind. The company has been awaiting for funding to transition to the company standard, PI Historian.						
OTHER VALUE									
Intangibles			Description						
Avoided Costs			\$10,000 avoided cost for Distribution System Pressure Exceeds Limit Report with benefit of being able to identify more MACOP exceedance events and be more proactive on the reporting of them, which supports public safety, company reputation, and compliance						
Avoided Costs			20 hourly time savings in Calibration Bottle Gas Process. Average of 10 Calibration Bottle Exchanges per year, 3 hrs per Calibration Gas Order. PI software will be used to interface with SAP. Using PI Gas Measurement Technician (GMT) Specialist would just need to review, approve, and submit the order to the vendor (0.5 hrs), track bottle delivery (negligible), and install (0.5 hrs).						
Avoided Costs			-45 hourly time savings in Carrier (Helium) Bottle Gas Process. Average 90 Carrier Bottle Exchanges per year, 1 hr per Carrier Gas Order. PI software will need to interface with SAP. Using PI GMT Specialist would just need to review, approve, and submit the order to the vendor (0.25 hrs), track bottle delivery (negligible), and install (0.25 hrs).						
Avoided Costs			-30 hourly time savings in Ultra Sonic Meter (USM) Health Assessment Report. Currently OMT Specialist dedicates 5 hrs per USM diagnostic/repair. Average 10 major repairs/yr. PI would be utilized to interface with Diesel Production Application as well as SAP for work order creation and parts supply chain post-ordering. This would reduce OMT Specialist to ~2 hrs for diagnostic/troubleshooting and reduce on-site assessments.						
Avoided Costs			-176 hourly time savings in Fuel Metering Monthly Reporting. Currently OMT Specialist dedicates 200 hourly to the monthly reporting of City Gas and Fuel Gas Users natural gas usage. Using PI data analysis and reporting, this would be reduced to 24 hourly.						
Avoided Costs			78 hourly time savings for importing flow, pressure, and temperature data for pig run preparation, outage preparation, and pig run reporting as well as creating custom tracking sheets using real-time data.						
Avoided Costs			Avoid additional Gas Control bandwidth. Replacing the DGR Database with a more robust PI historian will reduce daily reporting time and effort each month while providing results that are more accurate and available. (2 Gas Control @ 1 hr/day * 365 days/yr = 730 hourly)						
Avoided Costs			Avoided IT Operational Technology Labor when eDNA retired. Savings from consolidating from two supported historian platforms to one: 6 hours per server times 6 servers saved from Critical Infrastructure Systems team, 360 hours saved from the effort that would be required to migrate to the new hardware and upgrading eDNA to the latest fork of the software, including testing, 500 hours saved from not having to migrate eDNA to the modern architecture (Delphi), 300 hours saved from not having to migrate custom (NET 2.0) interfaces to new version of eDNA (SO-ADN to eDNA, eDNA to FuelCal, eDNA to Microsoft Accessible Operating Pressure (MAOP) data)						
Avoided Costs			Avoided Project to move forward to build a replacement for the DGR (Daily Gas Reports) Access Database [\$100,000]						
Technology Capability			Electric T&D, Gas T&D, Generation						
Intangibles			Gas Control - Replacing the Daily Gas Reports Database with a more robust PI historian will enable the ability to remove non-PI/BAAS mandated monitoring from Gas Control SCADA and enhance public safety through reduction in Operator issues.						
Avoided Costs			Gas Measurement Engineering 80 hourly time savings through more efficient data analysis.						
Avoided Costs			Total of \$46,961, projected cost avoidance from IT work related to CITECH for New Code Preventive Maintenance. (Based on 2019 work order data totaling \$62,615) then reducing that by a total of 75% over three years. Projected future waste reduction in time saved annually by avoiding on site facility visits for equipment issue diagnosing is estimated at 183 hrs (181.77 hrs). (Based on 2017 data, which was 244 hrs, \$24,156/yr and reducing that by 25%). Assuming this to be 75% reduction in time charged (some time is still required for reviewing PI configurations & performing data analysis). Conservatively assessing work with RM only. Reduced occurrence of pressure regulation equipment failures. September 2017 incident in Lansing ~ \$450,000+. Assuming annual, levelized risk to be \$100,000/yr (local and regulatory fines) *Assuming an hourly rate of \$99/hr.						

Gas Transmission Probabilistic Risk Model				Report Pulled: 11/1/2024				Item ID: 8801			
EXECUTIVE SUMMARY											
BASIC INFORMATION											
Work Category		Strategic/Grow						Work Type		Project	
Alias		, Gas Transmission Probabilistic Risk Model									
Description		The project will implement a risk analysis model for comprehensive predictive risk analysis and modeling on gas transmission pipeline assets.									
Portfolio		Gas Delivery Systems> Gas Engineering & Supply> IT Projects> IT Projects> *> *									
Org		CX&T			Bus Unit INFORMATION TECHNOLOGY			Dept		CX&T-IT-GAS	
WORK OBJECTIVES											
Problem Statement		Relative risk models are unit-less measures of risk derived from input information using qualitative data and ordinal scales to produce "risk index" scoring; in simple terms, the relative risk model does not provide true statistical measures. The risk assessment used in the current model provides a score for likelihood, consequence, and risk that is relevant only in comparison to other scores. While the outputs provide a sense of relative risk when comparing one pipeline with another, the scores do not provide quantitative scores for probability, frequency, or expected loss of events. Although pipeline operators commonly use relative risk models, the quality of the relative risk ranking relies on subject matter expert inputs, human inferences, and opinions. Furthermore, the current model does not meet the requirements of the MPSC, as indicated in a letter of noncompliance (dated January 15, 2019), citing gaps in the model with respect to known-failure data for welding and fabrication threats, inadequate depth-of-cover calculations, level of corrosion, and inability to provide statistical validation. Inability to mitigate these non-compliances without a probabilistic risk model or through significant manual workarounds will likely result in continued non-compliances.									
Objectives		Completion of this project will provide value to both the Company and its customers. Each party will benefit from safety improvements and risk mitigation through statistically-based risk modeling that leads to more informed pipeline replacement or improvement projects. Implementing probabilistic risk modelling supports the changes planned for in the Company's Natural Gas Delivery Plan (NGDP), including the Company Gas Management Safety System (GSMS). GSMS incorporates the Company's plan to implement the American Petroleum Institute (API) Recommended Practice 1173 (Pipeline Safety Management Systems). Additionally, the implementation of a probabilistic risk model will: (1) calculate quantitative risk scores that include measures of probability, frequency, or expected loss of events; and (2) configure multiple data sources to make advanced statistical calculations for interacting threats, both of which allow the Company to make more informed decisions based on improved quality inputs in a measurable model; and (3) provide information for better decisions on Capital project improvements and integrity management. Unlike the current unit-less relative model a probabilistic model will be a unit based risk score, specifically in the unit of dollars, improving efficiency in interpreting risk results for business decisions.									
Scope		The project scope encompasses the implementation of a probabilistic risk model for gas transmission. The project will: (1) install and configure risk model; (2) configure multiple data sources; and (3) develop reports and dashboards.									
Alternatives		Alternatives considered for the project include: (1) Continue the use of the relative risk model, but investing in substantial effort to build customization to bring the model into compliance. This alternative was not selected because although custom workarounds may bring the model into compliance, those work-arounds still result in arbitrary, relative rankings and do not provide confidence in the ability to provide statistical validation of results. (2) Implement a custom, Excel-based probabilistic risk model through a consulting effort. This alternative was not selected because although the effort minimizes the IT cost of the project, the model requires the creation of secondary data sources, leading to multiple "sources of truth". (3) Implement an on-premise probabilistic risk model. This alternative was not selected because the on-premise solutions analyzed are not mature and have not been widely tested with transmission operators. The option of implementing the cloud-based probabilistic risk model was chosen because it is the most cost-effective long-term implementation approach, providing commercial, off-the-shelf capabilities, industry-proven and upgradable technology, and ongoing vendor support.									
DATES (phase end)											
Initiation		Project Plan & Scope Definition				Final Engineering, Planning & Design			Execution		
1/3/2021		3/1/2021				9/30/2021			6/24/2022		
		In-Service/Go-Live				Closeout					
		6/24/2022				7/29/2022					
FUNDING SUMMARY											
		2021	2022	2023	2024	2025	2026	2027	2028 +	Total	
Cap+COR		\$0.417	\$0.470	\$0.177	-	-	-	-	-	\$1.064	
O&M		\$0.158	\$0.097	\$0.003	\$0.109	\$0.109	\$0.109	\$0.109	-	\$0.694	
Total Cost of Ownership		\$0.575	\$0.567	\$0.180	\$0.109	\$0.109	\$0.109	\$0.109	-	\$1.758	
		2021	2022	2023	2024	2025	2026	2027	2028 +	Total	
Labor		\$0.118	\$0.015	\$0.003	-	-	-	-	-	\$0.137	
Outside Services		\$0.446	\$0.507	\$(0.215)	-	-	-	-	-	\$0.738	
Business Expense/Overheads		\$0.011	\$0.044	\$0.047	-	-	-	-	-	\$0.102	
Employee Benefits		-	-	-	-	-	-	-	-	-	
Materials		-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees		-	-	\$0.345	-	-	-	-	-	\$0.345	
Other		-	-	-	-	-	-	-	-	-	
Total Project Cost		\$0.575	\$0.567	\$0.180	-	-	-	-	-	\$1.322	
VALUE & IMPACTS SUMMARY											
FINANCIAL IMPACTS		2021	2022	2023	2024	2025	2026	2027	2028 +	Total	
O&M		-	-	-	-	-	-	-	-	-	
		Reduction	\$0.158	\$0.097	\$0.003	\$0.109	\$0.109	\$0.109	-	\$0.694	
		Initial	-	-	-	-	-	-	-	-	
		Incremental	-	-	-	-	-	-	-	-	
		Net	\$0.158	\$0.097	\$0.003	\$0.109	\$0.109	\$0.109	-	\$0.694	
Cap+COR		-	-	-	-	-	-	-	-	-	
		Reduction	\$0.417	\$0.470	\$0.177	-	-	-	-	\$1.064	
		Initial	-	-	-	-	-	-	-	-	
		Incremental	-	-	-	-	-	-	-	-	
		Net	\$0.417	\$0.470	\$0.177	-	-	-	-	\$1.064	
Revenue		-	-	-	-	-	-	-	-	-	
		Reduction	-	-	-	-	-	-	-	-	
		Initial	-	-	-	-	-	-	-	-	
		Incremental	-	-	-	-	-	-	-	-	
		Net	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)				-1.000							
Risk Tolerance											
Corporate Risk		Impact	Likelihood	Description							
OTHER VALUE		Description									
Type		Asset Management									
Technology Capability											
Avoided Costs		Assumes 800 hours in annual avoided labor due to reduced labor efforts in Gas Engineering & Supply areas for running existing risk models. The new model decreases 20-30 hours of data management and analysis per transmission asset line, and assumes about 25-40 lines per year. The relative risk model utilizes large sets of data that are not consumed by any other company stakeholders. These are scoring-based data sets that are updated every time there is a change to the pipeline and periodically throughout the year. It is estimated that approximately 800 hours a year are spent updating these data sets, which can be avoided after the new model is implemented.									
Risk Mitigation		Implementation of a probabilistic risk model mitigates risk through a comprehensive, statistical analysis of threats to pipe segments, ensuring focus on solving the right problems and resolving the highest risk items.									
Risk Mitigation		Prevention of pipeline failures and avoided cost of pipeline ruptures: A probabilistic risk model would increase our ability to identify potential failures before they occur. A failure such as a pipe rupture can have a significant impact on the company, including the dollar cost to repair the damage as well as the impact to the public's perception of the Company. It is anticipated that there will be a reduction in these types of failures with this improved tool. Although the model will not necessarily eliminate the possibility that these types of ruptures will occur in the future, the model will reduce the likelihood that they will occur because we will have a better understanding of our system. The project investment could avoid actual and reputational costs by potentially avoiding one of these failures, which has been estimated to cost CE up to \$160 million. In addition, the new model will help better quantify the cost of a rupture.									
Intangibles		Quality improvement - Implementation of a probabilistic risk model provides quantifiable results that are more reliable, transparent, and understandable, rather than relatively manual; improving confidence in data and leading to improved decision-making for strategic planning, financial planning, and regulatory oversight.									
Intangibles		Waste elimination through potential productivity improvements. A true statistical model may eliminate workarounds with the current model that are necessary to support planning efforts by reducing investigation time and increasing user expertise through quantitative analysis and insight to core model functionality.									

Genesys Cloud Migration			Report Pulled: 11/1/2024			Item ID: 13423				
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category		Maintain - Condition				Work Type Project				
Alias		, Genesys Cloud Migration								
Description		The project will migrate the Company's existing on-premise customer contact solution and deploy it to the Genesys Platform As A Service ("PAAS") cloud-based solution. It will provide the Company with the ability to reduce operational costs for performing upgrades and maintenance, take advantage of new enhancements offered by the vendor, and ensure continued support of a critical customer communication channel.								
Portfolio		IT Services > Applications > Common Delivery Systems > * > * > *								
Org		CX&T	Bus Unit INFORMATION TECHNOLOGY			Dept CX&T-IT-CUSTOMER EXP & OPS				
WORK OBJECTIVES										
Problem Statement		In 2028, standard vendor support ends for the current on-premise software and extended support is not available from the vendor. Without vendor support, the application no longer receives security patches, bug fixes, or functionality support from the vendor, which creates security, stability, and reliability risk. With the upcoming end of standard support, the vendor is no longer offering feature enhancements to the current on-premise solution limiting the Company's ability to invest in new ways to better serve its customers.								
Objectives		This project will provide value to both the Company and its customers through: (1) reducing costs with cloud allocated hardware scalable to current usage needs; (2) reducing operating costs with vendor managed feature updates and maintenance provided without service disruption; (3) providing access to new and innovative capabilities to enhance customer service; and (4) reducing security, stability, and performance risk by ensuring consistent, seamless vendor support.								
Scope		The project scope includes: (1) deploying the new PAAS cloud-based solution in the vendor cloud environment; (2) installing a new internet circuit to directly connect the Company's systems to the vendors cloud environment; (3) updating existing customer interactive voice response ("IVR") system to accommodate the new cloud implementation; (4) implement new features supporting analytics, quality, and reporting; and (5) implement a built-in customer survey tool.								
Alternatives		Alternatives considered include: (1) Defer to later years. This alternative was not selected due to requiring upgrades of existing on-premise hardware, impeding our ability to take advantage of new features offered by the cloud solution, and reducing cost savings opportunities presented by moving to the cloud. (2) Deploy Genesys on-premise solution to new on-premise hardware. This alternative was not selected due to cost associated with purchasing new hardware and does not address the security, stability, and reliability risk resulting from the vendor end of support for the on-premise software. (3) Select and migrate to a new vendor software. This alternative was not selected due to the complexity of our existing internal integrations between the Genesys platform and the Company's other internal systems. As a result, selecting a new system with a new vendor would make the switch cost prohibitive. (4) Migrate to the Genesys Cloud platform. This alternative was selected due to it building on the Company strategy of moving to cloud, reducing operating and maintenance costs, and reduces risk by ensuring consistent, seamless vendor support.								
DATES (phase end)										
Initiation		Project Plan & Scope Definition			Final Engineering, Planning & Design		Execution			
3/1/2024		6/1/2024			8/1/2024		2/10/2025			
		In-Service/Go-Live			Closeout					
		9/11/2025			9/26/2025					
FUNDING SUMMARY										
		2024	2025	2026	2027	2028	2029	2030	2031 +	Total
Cap+COR		-	-	-	-	-	-	-	-	-
O&M		\$0.237	\$1.855	\$2.289	\$2.364	\$2.000	\$0.063	-	-	\$8.808
Total Cost of Ownership		\$0.237	\$1.855	\$2.289	\$2.364	\$2.000	\$0.063	-	-	\$8.808
		2024	2025	2026	2027	2028	2029	2030	2031 +	Total
Labor		\$0.008	\$0.290	\$0.400	\$0.400	\$0.200	-	-	-	\$1.298
Outside Services		\$0.229	\$0.218	\$0.301	\$0.301	\$0.150	-	-	-	\$1.199
Business Expense/Overheads		\$0.000	\$0.020	\$0.028	\$0.028	\$0.014	-	-	-	\$0.091
Employee Benefits		-	-	-	-	-	-	-	-	-
Materials		-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees		-	\$1.264	\$1.497	\$1.572	\$1.572	-	-	-	\$5.906
Other		-	-	-	-	-	-	-	-	-
Total Project Cost		\$0.237	\$1.792	\$2.226	\$2.301	\$1.937	-	-	-	\$8.493
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS		2024	2025	2026	2027	2028	2029	2030	2031 +	Total
O&M	Reduction	-	\$(0.597)	\$(0.378)	\$(0.303)	\$(0.303)	\$(0.153)	-	-	\$(1.736)
	Initial	\$0.237	\$1.855	\$2.289	\$2.364	\$2.000	\$0.063	-	-	\$8.808
	Incremental	-	-	-	-	-	-	-	-	-
Net		\$0.237	\$1.258	\$1.911	\$2.061	\$1.696	\$(0.090)	-	-	\$7.073
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
Net		-	-	-	-	-	-	-	-	-
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
Net		-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)				-0.802						
Risk Tolerance										
Corporate Risk		Impact	Likelihood	Description						
OTHER VALUE										
Type		Description								
Avoided Costs		Avoided costs of \$1,000,000 associated with on-premise server upgrades which would require both internal and external labor to complete. Savings based on on-prem server upgrades estimated at a total of \$970,000 and \$30,000 in extended server support would not be needed for the year 2026.								
Avoided Costs		Avoided costs of \$2,669,170 associated with the Genesys indication of a 20% increase in on-premise software maintenance year over year until the on-premise end-of-life. Calculated by taking the difference between the IT forecasted on-premises software maintenance minus the estimated expected cost with 20% increase for each year starting in 2025. [2025: \$1,717,174 (expected) - \$1,623,397 (forecast) = \$93,777] [2026: \$2,060,608 (expected) - \$1,638,077 (forecast) = \$422,531] [2027: \$2,472,730 (expected) - \$1,638,077 (forecast) = \$834,653] [2028: \$2,967,286 (expected) - \$1,638,077 (forecast) = \$1,329,209] [Total Savings: \$93,777 + \$422,531 + \$834,653 + \$1,329,209 = \$2,669,170]								
Avoided Costs		Avoided costs of \$365,000 associated with reduction of voice circuits. Savings based on \$60,000 per year in SIP circuit costs + \$60,000 per year in H&H voice circuit costs, minus \$63,000 in annual costs for AWS direct connect. Assumes only partial year costs for AWS circuit in 2024. [2024: \$120,000 - \$40,000 = \$80,000] [2025: \$120,000 - \$63,000 = \$57,000] [2026: \$120,000 - \$63,000 = \$57,000] [2027: \$120,000 - \$63,000 = \$57,000] [2028: \$120,000 - \$63,000 = \$57,000] [2029: \$120,000 - \$63,000 = \$57,000] [Total Savings = \$80,000 + \$57,000 + \$57,000 + \$57,000 + \$57,000 = \$365,000]								
Avoided Costs		Reduces annual ongoing costs associated with running on-premise solution including virtual machines and storage. Approximate avoided cost of \$728,092 per year which was estimated by including the monthly HCL management expense per virtual machine, Azure 3rd copy backup storage, VMware licenses, on-premise Commvault backup storage, operating system licenses, and other shared infrastructure costs.								

HR Support Pack and Business Software Inc Upgrade 2023				Report Pulled: 11/1/2024				Item ID: 12506											
EXECUTIVE SUMMARY																			
BASIC INFORMATION																			
Work Category		Comply - Interval				Work Type				Project									
Alias		, HR Support Pack and Business Software Inc Upgrade 2023																	
Description		The HR Support Pack and BSI upgrade will update the SAP system with HR Support Packs that are released annually by SAP to comply with HR and tax changes.																	
Portfolio		IT Services > Applications > Foundational Enterprise Applications > * > * > *																	
Org		CX&T		Bus Unit			INFORMATION TECHNOLOGY		Dept		CX&T-IT-CORPORATE								
WORK OBJECTIVES																			
Problem Statement		SAP releases annual HR support packs to ensure compliance. Without them, the Company would be unable to comply with HR and tax changes, resulting in the inability to calculate and distribute payroll.																	
Objectives		This project creates value for the Company by: (1) ensuring that its systems are in compliance with new financial rules and regulations; and (2) ensuring that it can calculate and distribute payroll.																	
Scope		The scope of this project is to add SAP HR corrections to ensure proper reporting of financial information by the Company.																	
Alternatives		As this is an upgrade of an existing system, the alternative considered was to delay the upgrade. This alternative was not chosen due to the risk of not complying with financial rules and regulations.																	
DATES (phase end)																			
Initiation		Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution											
2/6/2023		2/27/2023			4/3/2023			4/24/2023											
		In-Service/Go-Live			Closeout														
		12/22/2023			12/29/2023														
FUNDING SUMMARY																			
		2023		2024		2025		2026		2027		2028		2029		2030 +		Total	
Cap+COR		-		-		-		-		-		-		-		-		-	
O&M		\$0.647		\$0.017		-		-		-		-		-		-		\$0.664	
Total Cost of Ownership		\$0.647		\$0.017		-		-		-		-		-		-		\$0.664	
		2023		2024		2025		2026		2027		2028		2029		2030 +		Total	
Labor		\$0.079		\$0.002		-		-		-		-		-		-		\$0.081	
Outside Services		\$0.528		\$0.014		-		-		-		-		-		-		\$0.542	
Business Expense/Overheads		\$0.040		\$0.001		-		-		-		-		-		-		\$0.041	
Employee Benefits		-		-		-		-		-		-		-		-		-	
Materials		-		-		-		-		-		-		-		-		-	
Licenses, Permits & Fees		\$0.001		-		-		-		-		-		-		-		\$0.001	
Other		-		-		-		-		-		-		-		-		-	
Total Project Cost		\$0.647		\$0.017		-		-		-		-		-		-		\$0.664	
VALUE & IMPACTS SUMMARY																			
FINANCIAL IMPACTS																			
		2023		2024		2025		2026		2027		2028		2029		2030 +		Total	
O&M		Reduction		-		-		-		-		-		-		-		-	
		Initial		\$0.647		\$0.017		-		-		-		-		-		\$0.664	
		Incremental		-		-		-		-		-		-		-		-	
		Net		\$0.647		\$0.017		-		-		-		-		-		\$0.664	
Cap+COR		Reduction		-		-		-		-		-		-		-		-	
		Initial		-		-		-		-		-		-		-		-	
		Incremental		-		-		-		-		-		-		-		-	
		Net		-		-		-		-		-		-		-		-	
Revenue		Reduction		-		-		-		-		-		-		-		-	
		Initial		-		-		-		-		-		-		-		-	
		Incremental		-		-		-		-		-		-		-		-	
		Net		-		-		-		-		-		-		-		-	
		B/C Ratio (Overall)																-1.000	
Risk Tolerance																			
Corporate Risk		Impact		Likelihood		Description													
Compliance & Ethics		High		High		Without the release of the new support packs from SAP, Consumers Energy would not be compliant with new HR and tax changes. As a result, it would not be able to calculate and distribute payroll.													
OTHER VALUE																			
Type		Description																	
Technology Capability		Compliance & Risk Management																	
Risk Mitigation		The support packs are released throughout the course of the year to ensure compliance with HR and tax changes.																	

HR Support Pack and Business Software Inc Upgrade 2024 Report Pulled: 11/1/2024 Item ID: 12507									
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Comply - Interval						Work Type	Project	
Alias	, HR Support Pack and Business Software Inc Upgrade 2024								
Description	The HR Support Pack and BSI upgrade will update the SAP system with HR Support Packs that are released annually by SAP to comply with HR and tax changes.								
Portfolio	IT Services > Applications > Foundational Enterprise Applications > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY				Dept	CX&T-IT-APPLICATION PLATFORMS & SER	
WORK OBJECTIVES									
Problem Statement	SAP releases annual HR support packs to ensure compliance. Without them, the Company would be unable to comply with HR and tax changes, resulting in the inability to calculate and distribute payroll.								
Objectives	This project creates value for the Company by: (1) ensuring that its systems are in compliance with new financial rules and regulations; and (2) ensuring that it can calculate and distribute payroll.								
Scope	The scope of this project is to add SAP HR corrections to ensure proper reporting of financial information by the Company.								
Alternatives	As this is an upgrade of an existing system, the alternative considered was to delay the upgrade. This alternative was not chosen due to the risk of not complying with financial rules and regulations.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution		
2/5/2024	3/1/2024			4/1/2024			11/1/2024		
	In-Service/Go-Live			Closeout					
	12/21/2024			12/31/2024					
FUNDING SUMMARY									
	2022	2023	2024	2025	2026	2027	2028	2029 +	Total
Cap+COR	-	-	-	-	-	-	-	-	-
O&M	-	-	\$0.569	-	-	-	-	-	\$0.569
Total Cost of Ownership	-	-	\$0.569	-	-	-	-	-	\$0.569
	2022	2023	2024	2025	2026	2027	2028	2029 +	Total
Labor	-	-	\$0.118	-	-	-	-	-	\$0.118
Outside Services	-	-	\$0.434	-	-	-	-	-	\$0.434
Business Expense/Overheads	-	-	\$0.017	-	-	-	-	-	\$0.017
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	-	-	\$0.569	-	-	-	-	-	\$0.569
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2022	2023	2024	2025	2026	2027	2028	2029 +	Total
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	\$0.569	-	-	-	-	-	\$0.569
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	\$0.569	-	-	-	-	-	\$0.569
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-1.000						
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
Compliance & Ethics	High	High	Without the release of the new support packs from SAP, Consumers Energy would not be compliant with new HR and tax changes. As a result, it would not be able to calculate and distribute payroll.						
OTHER VALUE									
Type	Description								
Technology Capability	Compliance & Risk Management								
Risk Mitigation	The support packs are released throughout the course of the year to ensure compliance with HR and tax changes.								

HR Support Pack and Business Software Inc Upgrade 2025				Report Pulled: 11/1/2024				Item ID: 12508			
EXECUTIVE SUMMARY											
BASIC INFORMATION											
Work Category	Comply - Interval						Work Type	Project			
Alias	, HR Support Pack and Business Software Inc Upgrade 2025										
Description	The HR Support Pack and BSI upgrade will update the SAP system with HR Support Packs that are released annually by SAP to comply with HR and tax changes.										
Portfolio	IT Services > Applications > Foundational Enterprise Applications > * > * > *										
Org	CX&T			Bus Unit	INFORMATION TECHNOLOGY			Dept	CX&T-IT-APPLICATION PLATFORMS & SEI		
WORK OBJECTIVES											
Problem Statement	SAP releases annual HR support packs to ensure compliance. Without them, the Company would be unable to comply with HR and tax changes, resulting in the inability to calculate and distribute payroll.										
Objectives	This project creates value for the Company by: (1) ensuring that its systems are in compliance with new financial rules and regulations; and (2) ensuring that it can calculate and distribute payroll.										
Scope	The scope of this project is to add SAP HR corrections to ensure proper reporting of financial information by the Company.										
Alternatives	Alternatives considered include: (1) Not upgrading to the current support packs which results in noncompliance with financial rules and regulations and inaccurate payroll; (2) there is no economical cloud solution, so this option was not entertained; (3) apply the appropriate support pack upgrades. Option (3) is the preferred option because it enables the company to comply with HR and tax changes, resulting in the ability to correctly calculate and distribute payroll.										
DATES (phase end)											
Initiation	Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution				
2/5/2025	2/26/2025			3/31/2025			11/1/2025				
	In-Service/Go-Live			Closeout							
	12/19/2025			12/31/2025							
FUNDING SUMMARY											
Cap+COR	2022	2023	2024	2025	2026	2027	2028	2029 +	Total		
O&M	-	-	-	\$0.984	-	-	-	-	\$0.984		
Total Cost of Ownership	-	-	-	\$0.984	-	-	-	-	\$0.984		
Labor	2022	2023	2024	2025	2026	2027	2028	2029 +	Total		
Outside Services	-	-	-	\$0.106	-	-	-	-	\$0.106		
Business Expense/Overheads	-	-	-	\$0.553	-	-	-	-	\$0.553		
Employee Benefits	-	-	-	\$0.324	-	-	-	-	\$0.324		
Materials	-	-	-	-	-	-	-	-	-		
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-		
Other	-	-	-	-	-	-	-	-	-		
Total Project Cost	-	-	-	\$0.984	-	-	-	-	\$0.984		
VALUE & IMPACTS SUMMARY											
FINANCIAL IMPACTS											
O&M	2022	2023	2024	2025	2026	2027	2028	2029 +	Total		
Reduction	-	-	-	-	-	-	-	-	-		
Initial	-	-	-	\$0.984	-	-	-	-	\$0.984		
Incremental	-	-	-	-	-	-	-	-	-		
Net	-	-	-	\$0.984	-	-	-	-	\$0.984		
Cap+COR	2022	2023	2024	2025	2026	2027	2028	2029 +	Total		
Reduction	-	-	-	-	-	-	-	-	-		
Initial	-	-	-	-	-	-	-	-	-		
Incremental	-	-	-	-	-	-	-	-	-		
Net	-	-	-	-	-	-	-	-	-		
Revenue	2022	2023	2024	2025	2026	2027	2028	2029 +	Total		
Reduction	-	-	-	-	-	-	-	-	-		
Initial	-	-	-	-	-	-	-	-	-		
Incremental	-	-	-	-	-	-	-	-	-		
Net	-	-	-	-	-	-	-	-	-		
B/C Ratio (Overall)			-1.000								
Risk Tolerance											
Corporate Risk	Impact	Likelihood	Description								
Compliance & Ethics	High	High	Without the release of the new support packs from SAP, Consumers Energy would not be compliant with new HR and tax changes. As a result, it would not be able to calculate and distribute payroll.								
OTHER VALUE											
Type	Description										
Technology Capability	Compliance & Risk Management										
Risk Mitigation	The support packs are released throughout the course of the year to ensure compliance with HR and tax changes.										

HR Support Pack and Business Software Inc Upgrade 2026				Report Pulled: 11/1/2024				Item ID: 12755											
EXECUTIVE SUMMARY																			
BASIC INFORMATION																			
Work Category		Comply - Interval				Work Type Project													
Alias		, HR Support Pack and Business Software Inc Upgrade 2025, HR Support Pack and Business Software Inc Upgrade 2026																	
Description		The Human Resources (HR) Support Pack and Business Software Inc (BSI) upgrade will update the SAP system with HR Support Packs that are released annually by SAP to comply with HR and tax changes.																	
Portfolio		IT Services > Applications > Foundational Enterprise Applications > * > * > *																	
Org		CX&T		Bus Unit INFORMATION TECHNOLOGY		Dept CX&T-IT-APPLICATION PLATFORMS & SEI													
WORK OBJECTIVES																			
Problem Statement		SAP releases annual HR support packs to ensure compliance. Without them, the Company would be unable to comply with HR and tax changes, resulting in the inability to calculate and distribute payroll.																	
Objectives		This project creates value for the Company by: (1) ensuring that its systems are in compliance with new financial rules and regulations; and (2) ensuring that it can calculate and distribute payroll.																	
Scope		The scope of this project is to add SAP HR corrections to ensure proper reporting of financial information by the Company.																	
Alternatives		Alternatives considered include: (1) Not upgrading to the current support packs which results in noncompliance with financial rules and regulations and inaccurate payroll; (2) there is no economical cloud solution, so this option was not entertained; (3) apply the appropriate support pack upgrades. Option (3) is the preferred option because it enables the company to comply with HR and tax changes, resulting in the ability to correctly calculate and distribute payroll.																	
DATES (phase end)																			
Initiation		Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution											
2/5/2026		2/26/2026			3/31/2026			11/1/2026											
		In-Service/Go-Live			Closeout														
		12/19/2026			12/31/2026														
FUNDING SUMMARY																			
		2026		2027		2028		2029		2030		2031		2032		2033 +		Total	
Cap+COR		-		-		-		-		-		-		-		-		-	
O&M		\$0.785		-		-		-		-		-		-		-		\$0.785	
Total Cost of Ownership		\$0.785		-		-		-		-		-		-		-		\$0.785	
		2026		2027		2028		2029		2030		2031		2032		2033 +		Total	
Labor		\$0.106		-		-		-		-		-		-		-		\$0.106	
Outside Services		\$0.553		-		-		-		-		-		-		-		\$0.553	
Business Expense/Overheads		\$0.125		-		-		-		-		-		-		-		\$0.125	
Employee Benefits		-		-		-		-		-		-		-		-		-	
Materials		-		-		-		-		-		-		-		-		-	
Licenses, Permits & Fees		-		-		-		-		-		-		-		-		-	
Other		-		-		-		-		-		-		-		-		-	
Total Project Cost		\$0.785		-		-		-		-		-		-		-		\$0.785	
VALUE & IMPACTS SUMMARY																			
FINANCIAL IMPACTS		2026		2027		2028		2029		2030		2031		2032		2033 +		Total	
O&M		Reduction		-		-		-		-		-		-		-		-	
		Initial		\$0.785		-		-		-		-		-		-		\$0.785	
		Incremental		-		-		-		-		-		-		-		-	
		Net		\$0.785		-		-		-		-		-		-		\$0.785	
Cap+COR		Reduction		-		-		-		-		-		-		-		-	
		Initial		-		-		-		-		-		-		-		-	
		Incremental		-		-		-		-		-		-		-		-	
		Net		-		-		-		-		-		-		-		-	
Revenue		Reduction		-		-		-		-		-		-		-		-	
		Initial		-		-		-		-		-		-		-		-	
		Incremental		-		-		-		-		-		-		-		-	
		Net		-		-		-		-		-		-		-		-	
		B/C Ratio (Overall)																-1.000	
Risk Tolerance																			
Corporate Risk		Impact		Likelihood		Description													
Compliance & Ethics		High		High		Without the release of the new support packs from SAP, Consumers Energy would not be compliant with new HR and tax changes. As a result, it would not be able to calculate and distribute payroll.													
OTHER VALUE																			
Type		Description																	
Technology Capability		Compliance & Risk Management																	
Risk Mitigation		The support packs are released throughout the course of the year to ensure compliance with HR and tax changes.																	

ISIS Papyrus 2026 Upgrade		Report Pulled: 11/1/2024		Item ID: 13461					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Maintain - Interval			Work Type	Project				
Alias	ISIS Papyrus Upgrade, ISIS Papyrus 2026 Upgrade								
Description	This project will upgrade the Papyrus Objects suite of applications to the most recent version available per vendor recommendation. The ISIS Papyrus application is critical to creating electronic and paper correspondence for customers, including bills and dunnings.								
Portfolio	IT Services > Applications > Foundational Enterprise Applications > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-APPLICATION PLATFORMS & SER				
WORK OBJECTIVES									
Problem Statement	The application will be at least 1 major upgrade revision behind by 2026. It's imperative our customers retain unfettered access to their paper bills, dunning notices and other communications produced by ISIS. ISIS also makes customer bills available for online viewing through the website and mobile apps. Without the upgrade, our vendors make no guarantee that any substantial patches or hot fixes impacting application reliability, capacity and security will be forthcoming. The upgrade will address these problems and challenges, as well bring ensure all other platform components comply with our company operational and security standards.								
Objectives	The value of this project includes: (1) providing a more stable operational model by upgrading to the most recent version available; (2) maintaining the necessary vendor support; and (3) resolving tuning and stability issues with the vendors.								
Scope	The scope of the project is to upgrade the various licensed products that comprise the Papyrus Objects suite of applications.								
Alternatives	As this is an upgrade of an existing system, the alternative considered was to delay the upgrade and continue operating with the current version. This alternative was not chosen due to the risk of application stability and the inability to maintain cyber security patching.								
DATES (phase end)									
Initiation 2/1/2026	Project Plan & Scope Definition 2/1/2026 In-Service/Go-Live 9/1/2026		Final Engineering, Planning & Design 4/1/2026 Closeout 10/1/2026		Execution 6/1/2026				
FUNDING SUMMARY									
	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>	<u>2032</u>	<u>2033 +</u>	<u>Total</u>
Cap+COR	\$0.720	-	-	-	-	-	-	-	\$0.720
O&M	\$0.276	-	-	-	-	-	-	-	\$0.276
Total Cost of Ownership	\$0.996	-	-	-	-	-	-	-	\$0.996
	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>	<u>2032</u>	<u>2033 +</u>	<u>Total</u>
Labor	\$0.475	-	-	-	-	-	-	-	\$0.475
Outside Services	-	-	-	-	-	-	-	-	-
Business Expense/Overheads	\$0.146	-	-	-	-	-	-	-	\$0.146
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	\$0.080	-	-	-	-	-	-	-	\$0.080
Licenses, Permits & Fees	\$0.295	-	-	-	-	-	-	-	\$0.295
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	\$0.996	-	-	-	-	-	-	-	\$0.996
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>	<u>2032</u>	<u>2033 +</u>	<u>Total</u>
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.276	-	-	-	-	-	-	-	\$0.276
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.276	-	-	-	-	-	-	-	\$0.276
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.720	-	-	-	-	-	-	-	\$0.720
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.720	-	-	-	-	-	-	-	\$0.720
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000							
Risk Tolerance									
<u>Corporate Risk</u>	<u>Impact</u>	<u>Likelihood</u>	<u>Description</u>						
Technology Obsolescence	High	Medium	An out-of-support version of Papyrus Designer means that ISIS Papyrus no longer provides hotfix support. This will put the company network at risk, which is critical to avoid as this is responsible for paper billing.						
OTHER VALUE									
<u>Type</u>	<u>Description</u>								
Technology Capability	Administrative & General (A&G) Support								
Intangibles	Newer versions of ISIS Papyrus enable better integration with newest operating systems (Linux) and database (SQL).								
Intangibles	Newer versions of ISIS Papyrus will improve performance and enhance productivity for billing and invoices.								

IT Access Controls Governance		Report Pulled: 11/1/2024		Item ID: 6830					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Comply - Interval			Work Type	Project				
Alias	SAP Access Controls, Access Controls Governance, IT Access Controls Governance								
Description	This project replaces the current software tool that manages and monitors Sarbanes-Oxley Act ("SOX") compliance for SAP transactions.								
Portfolio	IT Services > Applications > Corporate Services > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-PLANNING & GOV				
WORK OBJECTIVES									
Problem Statement	To comply with SOX controls, standard SAP user access is reviewed on a semi-annual schedule, sensitive access is reviewed quarterly, and emergency access management is reviewed as needed. The current solution for validating these controls is SAP's GRC (Governance, Risk and Compliance) Access Controls software application. The SAP GRC system is the backbone for the Company's IT General Controls, which ensures legal compliance. Problems with current implementation include: (1) increased risks as the current process is manually intensive and inefficient, and could lead to SOX audit deficiencies; (2) customized code makes it difficult and costly to maintain, including the application of fixes; (3) difficulty meeting SOX compliance when requirements change from auditors and the Public Company Accounting Oversight Board (PCAOB); (4) incomplete reports for segregation of duties and change logs; and (5) increased risks exist when elevated access is needed in SAP production.								
Objectives	The project will add value through: (1) reducing risk and eliminating waste through new tools that provide higher levels of automation and process optimization to reduce inefficiencies, human errors and avoid SOX audit findings; (2) decreasing maintenance of \$15,000 per month and upgrade costs by implementing an out-of-the-box solution without customization; (3) increasing the ability to meet requirement changes from auditors and the Public Company Accounting Oversight Board; and (4) creating complete and accurate report capabilities.								
Scope	The project scope includes: (1) automating the SAP periodic user access review; (2) automating the emergency access management process; (3) displaying areas of risk and identifying how to mediate that risk; (4) tracking mitigations; and (5) converting the current rule set into the new tool.								
Alternatives	Alternatives considered include: (1) Continue using the current application as-is, accepting the audit risks stemming from known issues. This alternative was not selected due to the risk associated with standard SAP support ending on December 31, 2020. (2) Use robotic process automation in a limited scope to automate some manual tasks and reduce errors. This alternative was not selected as it would not mitigate risks and gaps in the current tool. (3) Develop a custom solution to perform some of the work. This alternative was not selected as it would be more costly and include higher maintenance and support costs. (4) Continue applying program patches and fixes from SAP for the current tool. This alternative was not selected as it does not address or fulfill all requirements, and requires support from an external vendor, which increases support costs. (5) Replace the existing tool with a new solution. This alternative was selected as it meets Company requirements, avoids hiring two additional resources, is more cost effective in the long term, adds more process automation, and increases SOX compliance.								
DATES (phase end)									
Initiation 1/7/2021	Project Plan & Scope Definition 4/30/2021 In-Service/Go-Live 10/29/2021		Final Engineering, Planning & Design 7/31/2021 Closeout 12/18/2021		Execution 10/28/2021				
FUNDING SUMMARY									
	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027 +</u>	<u>Total</u>
Cap+COR	\$0.586	\$1.428	\$1.357	\$0.322	-	-	-	-	\$3.693
O&M	\$0.163	\$0.366	\$0.116	\$0.130	\$0.177	\$0.182	\$0.188	\$0.190	\$1.512
Total Cost of Ownership	\$0.749	\$1.794	\$1.473	\$0.451	\$0.177	\$0.182	\$0.188	\$0.190	\$5.205
	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027 +</u>	<u>Total</u>
Labor	-	\$0.440	\$0.083	-	-	-	-	-	\$0.523
Outside Services	\$0.071	\$0.980	\$1.276	-	-	-	-	-	\$2.327
Business Expense/Overheads	\$0.014	\$0.105	\$(0.463)	-	-	-	-	-	\$(0.344)
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	\$0.028	-	\$0.066	-	-	-	-	\$0.094
Licenses, Permits & Fees	\$0.664	\$0.241	\$0.577	\$0.322	-	-	-	-	\$1.804
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	\$0.749	\$1.794	\$1.473	\$0.388	-	-	-	-	\$4.404
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027 +</u>	<u>Total</u>
O&M	-	-	\$(0.108)	\$(0.108)	\$(0.108)	\$(0.108)	\$(0.108)	-	\$(0.540)
Initial	\$0.163	\$0.366	\$0.116	\$0.130	\$0.177	\$0.182	\$0.188	\$0.190	\$1.512
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.163	\$0.366	\$0.008	\$0.022	\$0.069	\$0.074	\$0.080	\$0.190	\$0.972
Cap+COR	-	-	-	-	-	-	-	-	-
Initial	\$0.586	\$1.428	\$1.357	\$0.322	-	-	-	-	\$3.693
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.586	\$1.428	\$1.357	\$0.322	-	-	-	-	\$3.693
Revenue	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)				-0.920					
Risk Tolerance									
<u>Corporate Risk</u>	<u>Impact</u>	<u>Likelihood</u>	<u>Description</u>						
Material Weakness in Business Controls	High	Low	This project will help ensure we do not have a material weakness.						
OTHER VALUE									
<u>Type</u>	<u>Description</u>								
Technology Capability	Compliance & Risk Management								
Risk Mitigation	Elimination of manual processes which are inefficient, prone to errors and could lead to SOX audit findings or material weaknesses.								
Intangibles	If this project is not done, IT Corporate Services will need to hire two additional resources to manage sensitive access and segregation of duties risk management.								

IT Operations Management - Service Operations		Report Pulled: 11/1/2024		Item ID: 13929					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow			Work Type	Project				
Alias	, IT Operations Management - Service Operations								
Description	This project will implement an application service mapping tool to effectively manage business-critical services through identification of infrastructure components and application interactions. This tool automates the mapping process to create a complete, up-to-date, and accurate record of the mapped application service in the Database. Application service mapping works hand-in-hand with asset discovery, building on discovered infrastructure data to identify all the assets that support a service, and along with their service-specific relationships.								
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-APPLICATION PLATFORMS & SER				
WORK OBJECTIVES									
Problem Statement	As the IT systems steadily increases in complexity and evolve faster than the IT organization can respond to system issues in an optimized and cost-effective manner, the current configuration of the system does not provide the clarity needed in order to understand how the infrastructure interacts with the applications within the IT System it supports and in order to respond to emergent IT incidents in the most rapid and costs effective manner. These constraints can lead to lengthy response and implementation times; negligible or ineffective resolutions; reduced functionality; and elongated outage times in the infrastructure and applications in the system.								
Objectives	This project will create value for the Company by mapping critical application services through discovery of the underlying infrastructure associated with application services and its relationship to parent business applications. Specifically, by creating application service maps, this project will: (1) increase visibility and understanding between Information Technology (IT) infrastructure and Configuration Items; (2) improve accuracy through real-time, automatically updated infrastructure and component changes; (3) reduce IT Subject Matter Experts time on emergent IT issues; (4) Utilize of IT Service Management processes; and (5) Reduce downtime by identifying dependencies and impact analysis.								
Scope	The project scope includes: (1) implementation of On-Premise application service maps which have significant business impact; (2) establishment of process roles needed to support service maps built.								
Alternatives	Alternatives considered included: (1) Choose an alternate IT Operations Management System with Cloud capabilities. This alternative was not chosen as it would require introducing and integrating an additional vendor product into the technical landscape. (2) Develop a custom solution. This alternative was not chosen since the cost to build and maintain similar capabilities and to integrate the custom solution would not be feasible or cost effective. (3) Do nothing. This alternative was not chosen as there would be a correlation gap between application services and the underlying infrastructure and would not address the ever-increasing resolution costs. (4) Develop and implement an on-premises service mapping and process solution. This alternative was chosen due to the value in Information Technology (IT) Operations Management and its integration capabilities with other platform modules from the same vendor. It offers a unified platform that can utilize the Configuration Management Database (CMDB) and work hand-in-hand with asset discovery.								
DATES (phase end)									
Initiation 10/1/2023	Project Plan & Scope Definition 12/1/2023 In-Service/Go-Live 3/9/2024		Final Engineering, Planning & Design 12/31/2023 Closeout 3/30/2024		Execution 1/1/2024				
FUNDING SUMMARY									
Cap+COR	2023 \$2,812	2024 \$0,200	2025 -	2026 -	2027 -	2028 -	2029 -	2030 + -	Total \$3,012
O&M	\$0,634	\$0,066	\$0,015	\$0,015	\$0,015	\$0,015	-	-	\$0,760
Total Cost of Ownership	\$3,446	\$0,266	\$0,015	\$0,015	\$0,015	\$0,015	-	-	\$3,772
Labor	2023 \$0,002	2024 \$0,004	2025 -	2026 -	2027 -	2028 -	2029 -	2030 + -	Total \$0,006
Outside Services	\$0,074	\$0,202	-	-	-	-	-	-	\$0,276
Business Expense/Overheads	\$0,028	\$0,059	-	-	-	-	-	-	\$0,087
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	\$3,342	-	-	-	-	-	-	-	\$3,342
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	\$3,446	\$0,266	-	-	-	-	-	-	\$3,712
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
O&M	2023 Reduction Initial Incremental Net	2024 \$0,634 \$0,066 -	2025 \$0,015 \$0,015 \$0,015	2026 \$0,015 \$0,015 \$0,015	2027 \$0,015 \$0,015 \$0,015	2028 \$0,015 \$0,015 \$0,015	2029 - - -	2030 + - - -	Total \$0,760 \$0,760 \$0,760
Cap+COR	2023 Reduction Initial Incremental Net	2024 -\$2,812 \$0,200 -	2025 - - -	2026 - - -	2027 - - -	2028 - - -	2029 - - -	2030 + - - -	Total -\$3,012 \$3,012 \$3,012
Revenue	2023 Reduction Initial Incremental Net	2024 - - -	2025 - - -	2026 - - -	2027 - - -	2028 - - -	2029 - - -	2030 + - - -	Total - - -
B/C Ratio (Overall)			-1.000						
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Intangibles	By implementing ITOM application service mapping it enables the Top-Down Service aware CMDB that can utilize Information Technology Service Management processes and helps in quicker Business Impact determination which will help prioritize the actions and decisions for future enhancements.								
Technology Capability	By implementing ITOM Application Service Mapping there will be better Administrative & General (A&G) Support, as this provides visibility into how the infrastructure is connected to applications. It will create a more Service aware configuration management which will improve technical impact Analysis and prioritization leading to a reduction in downtime, better root cause analysis of incidents for the operations teams, and efficient change management.								
Avoided Costs	Improving the MTTR (Mean Time to Resolution) for major incidents is one of the primary uses for having services mapped. Understanding the relationships between all of the CIs that make up a service, and easily seeing recent Incidents and Changes on those CIs, provides invaluable insight in both ensuring the Incident is routed to the right team quickly, and in troubleshooting an active issue. Projected Cost Saving - 30% of total labor cost - about \$420K on Non-MI MTTR (Customer impacting P2 incidents - Performance/Degradation) and \$360K on MI MTTR (P1 and P2 Critical incidents).								
Technology Capability	Service Mapping makes the IT process more reliable with Automated mapping services that reduces the time users are handling errors and also enabling the mapping to be updated in real time.								

Itron Enterprise Edition 2025 Upgrade		Report Pulled: 11/1/2024		Item ID: 11761						
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Maintain - Interval			Work Type	Project					
Alias	Itron Enterprise Edition Upgrade, Itron Enterprise Edition 2025 Upgrade, Itron Enterprise Edition 2024 Upgrade, Itron Enterprise Edition 2026 Upgrade, Itron Enterprise Edition 2025 Upgrade									
Description	This project will upgrade Itron Enterprise Edition (IEE), which collects the reads from meters to ensure non-estimated bill accuracy.									
Portfolio	IT Services > Applications > Foundational Enterprise Applications > Foundational Enterprise Applications > * > *									
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-ELECTRIC					
WORK OBJECTIVES										
Problem Statement	Itron Enterprise Edition (IEE) is the Company's keystone application of the Advanced Metering Infrastructure (AMI), that provides billing data that includes time of use data. If this application does not stay current, the Company increases the risk business operations could be interrupted or compromised. Itron Enterprise Edition (IEE) is a key component in keeping the Company current, with billing capacity, stability, and accuracy obligations.									
Objectives	This project creates value for the Company by: (1) ensuring the features and functionality needed to meet and exceed customer satisfaction and billing accuracy are available to business partners and IT; (2) meeting Information Security's requirement to keep applications patched and protected from cyber attack.									
Scope	The scope of this project includes: (1) upgrading the Itron Enterprise Edition (IEE) applications to the next appropriate versions; (2) migrating the database to the next version required by the application.									
Alternatives	Alternatives considered included: (1) Defer the upgrade. This alternative was not selected because it would decouple Itron IEE (CE's Meter Data Management) from the Itron security infrastructure introducing application instability, security and dependency risks to the utility, possibly negatively impacting critical customer electric and gas billing operations. It would also likely affect other business critical Itron applications use, creating more expense to support and no ability to leverage updated tool capability. (2) Replace the platform. Replacing IEE/MDM would require the application business owners to undertake a new initiative mirroring the expense and effort that went into the multi-million dollar project responsible for setting up and leveraging this utility. (3) Perform the upgrade. This option is superior for both our customers and our Company because it maintains vendor support for hot fixes and patches, and aligns with all upgrade projects related to other Itron products.									
DATES (phase end)										
Initiation 7/29/2025	Project Plan & Scope Definition 8/12/2025 In-Service/Go-Live 5/20/2026		Final Engineering, Planning & Design 10/24/2025 Closeout 6/9/2026		Execution 5/1/2026					
FUNDING SUMMARY										
	2025	2026	2027	2028	2029	2030	2031	2032 ±	Total	
Cap+COR	-	-	-	-	-	-	-	-	-	
O&M	\$0.248	\$0.248	-	-	-	-	-	-	\$0.495	
Total Cost of Ownership	\$0.248	\$0.248	-	-	-	-	-	-	\$0.495	
	2025	2026	2027	2028	2029	2030	2031	2032 ±	Total	
Labor	\$0.231	\$0.231	-	-	-	-	-	-	\$0.463	
Outside Services	-	-	-	-	-	-	-	-	-	
Business Expense/Overheads	\$0.016	\$0.016	-	-	-	-	-	-	\$0.032	
Employee Benefits	-	-	-	-	-	-	-	-	-	
Materials	-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost	\$0.248	\$0.248	-	-	-	-	-	-	\$0.495	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS		2025	2026	2027	2028	2029	2030	2031	2032 ±	Total
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.248	\$0.248	-	-	-	-	-	-	\$0.495
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.248	\$0.248	-	-	-	-	-	-	\$0.495
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000								
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
Technology Obsolescence	High	High	If Consumers Energy does not upgrade this equipment, it would run the risk of losing support from the vendor, leading to security vulnerabilities and operational efficiency issues.							
OTHER VALUE										
Type	Description									
Technology Capability	Technology Capability									
Risk Mitigation	Without the upgrade, supportability and operational efficiency issues may increase over time. Resolving these issues becomes very problematic if vendor support is not available. It would also be difficult to keep the system current with security updates.									

Next Generation electronic Shift Operations Management Sys Report Pulled: 11/1/2024										Item ID: 12483
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Maintain - Interval						Work Type Project			
Alias	, Next Generation Clearance Management, Next Generation electronic Shift Operations Management System Replacement, Next Generation electronic Shift Operations Management System (eSOMS) Replacement									
Description	The project replaces the eSOMS with updated clearance lock out tag out ("LOTO") management software for Electric Generation facilities, and narrative logs and mobile rounds functionality for Electric Generation and Gas Compression facilities.									
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *									
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY				Dept	CX&T-IT-ELECTRIC		
WORK OBJECTIVES										
Problem Statement	The vendor is replacing the current system used at the Company and other utilities with a new software package called Lumada. The software migration is necessary for the Company to retain vendor support, so that the databases continue to receive security patches, bug fixes, and functionality support from the vendor, and avoid security, stability, and reliability risk.									
Objectives	The project will add value by: (1) maintaining functionality of a critical life safety application; (2) reducing the human struggle that comes from manual workarounds and an older application; (3) empowering employees with proper electronic tools to meet customer expectations; (4) enabling process improvements to deliver outages more effectively; (5) reducing plant downtime; (6) increasing reliability; and (7) increasing standardization across the Company.									
Scope	The scope of this project includes: (1) configuring software for clearance management, logbook, rounds, automated emails, and reporting; (2) migrating and archiving data; (3) enabling additional offline capabilities; (4) integrating with SAP for equipment and current status of work orders; (5) adding new integration to SAP for notifications from rounds and clearance functions (6) testing the software, data migrations and integrations; and (7) updating configuration management database, runbook, system recovery plan, LOTO work procedure, qualification training and other standard documentation.									
Alternatives	Alternatives considered include: (1) continuing to use the eSOMS application, though without vendor support. This alternative was not selected because losing vendor support for this critical application increases risks for application security, reliability, and supportability that can result in an employee safety incident in the complex tagging process, an extended plant production outage, a prolonged plant reliability issue, or regulatory or compliance violations. (2) Instituting the manual business continuity process until the application replacement is possible. This alternative was not selected because it would also increase the previously mentioned operational risks. (3) Replacing the eSOMS application by customizing SAP. This alternative was not selected as it would be more expensive and introduce additional risk to employees due to poor application fit. (4) Migrating the existing eSOMS data to an out of the box application such as the Lumada application. The option to migrate the existing eSOMS application to an out of the box solution was chosen to minimize cost and risk to the Company and its employees. Cloud hosting of the application infrastructure at the vendor's location was also evaluated, though due to the greater cost of this vendor hosting, the application infrastructure will be hosted on premise at the Company.									
DATES (phase end)										
Initiation 1/19/2026	Project Plan & Scope Definition 3/13/2026 In-Service/Go-Live 2/25/2027				Final Engineering, Planning & Design 6/19/2026 Closure 3/26/2027			Execution 2/25/2027		
FUNDING SUMMARY										
		<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>	<u>2032</u>	<u>2033 +</u>	<u>Total</u>
Cap+COR		\$0.600	\$0.312	-	-	-	-	-	-	\$0.913
O&M		\$0.027	\$0.019	-	-	-	-	-	-	\$0.046
Total Cost of Ownership		\$0.627	\$0.331	-	-	-	-	-	-	\$0.958
		<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>	<u>2032</u>	<u>2033 +</u>	<u>Total</u>
Labor		\$0.294	\$0.162	-	-	-	-	-	-	\$0.455
Outside Services		\$0.160	\$0.073	-	-	-	-	-	-	\$0.233
Business Expense/Overheads		\$0.151	\$0.094	-	-	-	-	-	-	\$0.245
Employee Benefits		-	-	-	-	-	-	-	-	-
Materials		\$0.022	\$0.003	-	-	-	-	-	-	\$0.024
Licenses, Permits & Fees		-	-	-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-	-	-
Total Project Cost		\$0.627	\$0.331	-	-	-	-	-	-	\$0.958
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS										
		<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>	<u>2032</u>	<u>2033 +</u>	<u>Total</u>
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.027	\$0.019	-	-	-	-	-	-	\$0.046
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.027	\$0.019	-	-	-	-	-	-	\$0.046
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.600	\$0.312	-	-	-	-	-	-	\$0.913
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.600	\$0.312	-	-	-	-	-	-	\$0.913
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)				-1.000						
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									
Technology Capability	4 - Electric T&D, Gas T&D, Generation									
Intangibles	Having this electronic application available through a vendor supported version, empowers employees with proper electronic tools instead of requiring paper logging, switching and tagging and rounds processes.									
Intangibles	The new software offers functionality improvements to better support plant outages (switching and tagging), logging, mobile and other functions more effectively.									
Intangibles	The new software reduces the human struggle of using manual workarounds for known issues in the current application's connectivity requirements.									
Risk Mitigation	This is a life safety application, therefore the risk of not keeping the application functioning risks the safety of Generation Operations' employees and contractors. If Consumers Energy uses an unsupported version and risks a critical application issue, it may result in a potential safety incident, prolonged plant production outage, prolonged plant reliability issue, regulatory or compliance violation.									

Operational Technology - Service Management Upgrade			Report Pulled: 11/1/2024		Item ID: 13924				
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow			Work Type	Project				
Alias	, ServiceNow OT Module, Operational Technology - Service Management, Operational Technology - Service Management Upgrade								
Description	This project will implement Operational Technology ("OT") service management capabilities. Service management provides automated asset tracking, maintenance, and incident management for the assets.								
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-APPLICATION PLATFORMS & SER				
WORK OBJECTIVES									
Problem Statement	The Company' Internal Audit team conducted an audit of the Operational Technology (OT) asset environment and identified significant gaps in the patch management program. The patch management operating model is decentralized, has limited and inconsistent standards, doesn't have a company-wide governance structure to monitor all business areas of the Company and lacks a complete and accurate asset inventory. Due to the lack of a complete asset inventory, as well as a significant number of gaps identified in the patch management governance, operating model, processes, and controls to manage all assets within the Company's environment, an unknown magnitude of risk exists that critical patches were not installed timely, which could create the potential for increased security vulnerabilities.								
Objectives	The project provides value to the Company in three ways 1.) Establishes a complete and accurate asset inventory. 2.) Creates a Company-wide governance structure with documented standards and processes to manage the assets and 3.) Defines a comprehensive patch management operating model with clearly defined roles and responsibilities.								
Scope	The project scope includes: (1) the implementation of an asset management tool (2) the implementation of an incident management tool, (3) and the establishment of process roles needed to support the assets.								
Alternatives	Alternatives considered included: (1) Choose a Cloud-based alternate asset management system. This option was not chosen as it would require introducing and integrating an additional vendor product into the technical landscape. (2) Develop a custom solution. This alternative was not chosen since the cost to build and maintain similar capabilities and to integrate the custom solution would not be feasible or cost effective. (3) Do nothing. Continue to manually track or not track Operational Technology (OT) Digital assets at the Company, which will not address the need to effectively track OT Digital assets and plan for their support. (4) Develop and implement an asset management and incident management tool and processes. This alternative ultimately chosen has strengths in Information Technology (IT) service management and its integration capabilities with other platform modules from the same vendor. It offers a unified platform that can help bridge the gap between IT and OT, enable the Company to manage both types of assets through a single interface.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
10/1/2023	11/4/2023		12/1/2023		12/3/2023				
	In-Service/Go-Live		Closeout						
	3/7/2024		3/29/2024						
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	\$0.729	\$0.164	-	-	-	-	-	-	\$0.892
O&M	\$0.148	\$0.044	\$0.005	\$0.005	\$0.005	\$0.005	-	-	\$0.212
Total Cost of Ownership	\$0.877	\$0.208	\$0.005	\$0.005	\$0.005	\$0.005	-	-	\$1.105
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	\$0.026	\$0.035	-	-	-	-	-	-	\$0.062
Outside Services	\$0.039	\$0.121	-	-	-	-	-	-	\$0.160
Business Expense/Overheads	\$0.009	\$0.051	-	-	-	-	-	-	\$0.061
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	\$0.803	-	-	-	-	-	-	-	\$0.803
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	\$0.877	\$0.208	-	-	-	-	-	-	\$1.085
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	-	-	-	-	-	-	-	-	-
Reduction	\$0.148	\$0.044	\$0.005	\$0.005	\$0.005	\$0.005	-	-	\$0.212
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.148	\$0.044	\$0.005	\$0.005	\$0.005	\$0.005	-	-	\$0.212
Cap+COR	-	-	-	-	-	-	-	-	-
Reduction	\$0.729	\$0.164	-	-	-	-	-	-	\$0.892
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.729	\$0.164	-	-	-	-	-	-	\$0.892
Revenue	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-1.000						
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Technology Capability	Consolidating Operational Technology Assets into a single database establishes the groundwork for potential future service management capabilities such as incident management, change management, and vulnerability management for the Operational Technology Team, all of which are poised to enhance operational performance.								
Intangibles	Having Operational Technology Assets in one database will improve efficiencies (with data stored in a single system, resources spend less time searching for information across multiple platforms, leading to increased productivity and faster decision making), increase accuracy (centralizing data reduces the likelihood of errors and inconsistencies that can occur when information is spread across disparate systems), better collaboration (one system encourages collaboration across teams. This fosters teamwork and enhances communication within the organization), better insights (having data in a single database facilitates comprehensive analysis and reporting. This allows for deeper insights into operations, trends and enable informed decision making). Overall, having data in one system simplifies operations, enhances efficiency, and empowers the company to make better informed decisions.								

Operational Technology (OT) Datacenter Migration		Report Pulled: 11/1/2024		Item ID: 13963					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow			Work Type	Project				
Alias	, OT Datacenter Colo, OT Datacenter Migration, Operational Technology Datacenter Migration, Operational Technology (OT) Datacenter Migration								
Description	The OT environment consists of systems supporting the control and monitoring of electric grid, electric generation, gas compression, and natural gas pipeline. These systems are critical for safe and reliable natural gas and electric delivery. The OT Datacenter Migration project enhances the Company's capabilities by co-locating to an enhanced datacenter at a vendor facility.								
Portfolio	IT Services > Infrastructure > Data Center - Enterprise Computing > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-APPLICATION PLATFORMS & SER				
WORK OBJECTIVES									
Problem Statement	The Company's current datacenter for the OT environment needs modernization and relocation from the Parnall Data Center. The current location is not the preferred location to house servers and systems critical to the control of the Electric Grid or Gas Pipeline due to the close proximity to a railway system. The climate conditioners in the current OT datacenter are aging and have had faults resulting in unplanned shutdowns . The location of the datacenter in the basement of the Parnall building is nearby to the main water piping for the building. There have been instances of water infiltration in the past.								
Objectives	This project creates value for the Company by significantly strengthening capabilities through: (1) mitigating legacy physical and location risks at the current Parnall site; (2) migrating the OT infrastructure to a modern, highly secured environment with redundancy in climate conditions; and (3) better datacenter facilities support with a guarantee of redundant power.								
Scope	The scope of the project includes: (1) migration of the OT environment from the Parnall Data Center to a co-located vendor data center; (2) re-validation of the OT Production and Disaster Recovery procedures once migration is completed; (3) migration of IT systems required for supporting the OT environment; and (4) decommission the existing OT environment from the Parnall location.								
Alternatives	The Company performed an analysis of alternatives to expand capabilities as well as address constraints and risks: (1) Remain at the current Parnall Data Center; (2) migrate OT environments to the Cloud; and (3) relocate to a third-party co-location facility. Current industry best practices do not recommend migration of OT environments to the cloud. The co-location vendor provides the building, cooling, power, and physical security the Company lacks for its servers, storage, and other computing and networking equipment at the current Parnall location. Based on the analysis, the Company decided to implement the third alternative.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
6/30/2026	9/8/2026		11/24/2026		1/15/2027				
	In-Service/Go-Live		Closeout						
	11/16/2027		12/1/2027						
FUNDING SUMMARY									
	2025	2026	2027	2028	2029	2030	2031	2032 +	Total
Cap+COR	-	\$6.877	\$0.872	-	-	-	-	-	\$7.750
O&M	-	\$2.311	\$3.985	\$1.816	\$1.816	-	-	-	\$9.928
Total Cost of Ownership	-	\$9.188	\$4.857	\$1.816	\$1.816	-	-	-	\$17.677
	2025	2026	2027	2028	2029	2030	2031	2032 +	Total
Labor	-	\$0.600	\$0.550	-	-	-	-	-	\$1.150
Outside Services	-	\$1.045	\$1.040	-	-	-	-	-	\$2.085
Business Expense/Overheads	-	\$2.033	\$1.451	-	-	-	-	-	\$3.484
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	\$5.010	-	-	-	-	-	-	\$5.010
Licenses, Permits & Fees	-	\$0.500	-	-	-	-	-	-	\$0.500
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	-	\$9.188	\$3.041	-	-	-	-	-	\$12.229
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2025	2026	2027	2028	2029	2030	2031	2032 +	Total
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	\$2.311	\$3.985	\$1.816	\$1.816	-	-	-	\$9.928
Incremental	-	-	-	-	-	-	-	-	-
Net	-	\$2.311	\$3.985	\$1.816	\$1.816	-	-	-	\$9.928
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	\$6.877	\$0.872	-	-	-	-	-	\$7.750
Incremental	-	-	-	-	-	-	-	-	-
Net	-	\$6.877	\$0.872	-	-	-	-	-	\$7.750
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-1.000						
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Technology Capability	Administrative & General (A&G) Support								
Intangibles	There could be impacts to business services, customer service, and Company reputation.								
Risk Mitigation	There is a need for enhancement to Consumer Energy's DR capabilities. Without a clear understanding of the risks, mitigation of those risks, and communication to all key stakeholders, the Company may not be able to recover from a loss of the primary data centers at Parnall. This risk may result in impacts to day-to-day operations and customers, which could have broader financial, reputational, and regulatory impacts.								
Risk Mitigation	Using a vendor managed co-location datacenter reduces Company risk as it relates to NERC/CIP regulatory requirement Physical Security CIP-006-6								
Intangibles	With the OT Datacenter migration, there is a highly secured environment, heating and cooling redundancy, and a guarantee of 100% power efficiency.								

Oracle Server Database Upgrade 2023		Report Pulled: 11/1/2024		Item ID: 12407					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Maintain - Interval			Work Type	Project				
Alias	Oracle Database Upgrade,Oracle Server Database Upgrade, Oracle Server Database Upgrade 2023-2024, Oracle Server Database Upgrade 2023-2025, Oracle Server Database Upgrade 2023								
Description	This project will upgrade Oracle server databases to the next version to support all business portfolios.								
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-APPLICATION PLATFORMS & SER				
WORK OBJECTIVES									
Problem Statement	The Company is currently managing Oracle server databases that run on multiple versions of Oracle: 8i, 9i, 11g, and 12c; all of which are currently unsupported as of 12/31/2020. Version 12c recently lost vendor support in July of 2019 and is eligible for extended support. Relying on extended support for Version 12c increases operational costs by \$121,000 annually. Extended support is not available for version 11g and older. Without vendor support, the databases no longer receive security patches, bug fixes, or functionality support which creates security, stability, and reliability risks.								
Objectives	This project will create value for the Company and its customers by: (1) reducing the risk of system failure and the resulting impacts to business partners and customers; and (2) ensuring that systems are secure, supported, and have the latest features and functionality. and (3) will do what we can to be compliant with Cyber Security Published standards, when possible. Many of the Cyber Security requirements are application dependent.								
Scope	The scope of this project includes upgrading to the next version of Oracle across all impacted business systems. Systems that cannot support current version of Oracle, will be upgraded to the highest supported version.								
Alternatives	Alternatives considered were; (1) delay database upgrades. This option was not chosen because, as stated, it would introduce significant security, stability and reliability risks; (2) Upgrade only to Version 12c and pay extended support. This option was not chosen, where possible, to avoid increased operational costs. The alternative chosen is to upgrade to the next version of Oracle and where systems do not support the current version of Oracle, upgrade to Version 12c and pay extended support until those systems are upgraded.								
DATES (phase end)									
Initiation 7/1/2023	Project Plan & Scope Definition 10/31/2023 In-Service/Go-Live 12/15/2023		Final Engineering, Planning & Design 11/30/2023 Closeout 12/31/2023		Execution 12/1/2023				
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	-	-	-	-	-	-	-	-	-
O&M	\$0.172	-	-	-	-	-	-	-	\$0.172
Total Cost of Ownership	\$0.172	-	-	-	-	-	-	-	\$0.172
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	\$0.051	-	-	-	-	-	-	-	\$0.051
Outside Services	\$0.111	-	-	-	-	-	-	-	\$0.111
Business Expense/Overheads	\$0.010	-	-	-	-	-	-	-	\$0.010
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	\$0.172	-	-	-	-	-	-	-	\$0.172
VALUE & IMPACTS SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.172	-	-	-	-	-	-	-	\$0.172
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.172	-	-	-	-	-	-	-	\$0.172
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000							
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
Technology Obsolescence	High	High	The Company is currently managing Oracle server databases that run on multiple versions of Oracle: 8i, 9i, 11g, and 12c; all of which are unsupported. Version 12c most recently lost vendor support in July of 2019 and is eligible for extended support, but it increases operational costs and is not available for version 11g and older. Without vendor support, the databases no longer receive security patches, bug fixes, or functionality support from the vendor, which creates security, stability, and reliability risk. The project mitigates these risks.						
OTHER VALUE									
Type	Description								
Technology Capability	Administrative & General (A&G) Support								
Risk Mitigation	If the upgrade is not completed, the organization is at risk of security vulnerability and system failure. Oracle touches many business partners who will lose their ability to adequately perform their job tasks and customers, who will not be able to interact with the Company website or receive information from contact centers. After July of 2019, there will be no bug or functionality fixes for versions 11g and older.								
Risk Mitigation	In the case of hardware, industry best practices suggest a five- to seven-year asset refresh cycle, while software, operating systems (OS), databases, and firmware typically require more frequent updates. Five to seven years is the useful window, according to market research Consumers Energy is making specific risk-based decisions on individual assets at the end of five years.								
Intangibles	Many of the business areas that use Oracle are customer facing, including the contact centers and the website. If Oracle were to fail, the reputation of the organization would be at risk.								
Intangibles	The outage management system would be impacted by a system failure. In the event of an unplanned outage, it would affect timely response to gas leaks, down wires, worker deployment, and field services.								

Physical Access Management and Alarm Response				Report Pulled: 11/1/2024				Item ID: 13976			
EXECUTIVE SUMMARY											
BASIC INFORMATION											
Work Category		Maintain - Condition						Work Type		Project	
Alias		, Physical Access Management and Alarm Response									
Description		The project will replace the Company's Physical Access Management System to establish a centralized platform that manages user identities, authenticates users, authorizes access, and audits user activities. The intent of this project is to consolidate and modernize the Company's physical security systems that will enable enhanced security monitoring to prevent unauthorized entry into sensitive corporate areas while providing increased flexibility to the Company's valued employees and contractors.									
Portfolio		Corporate Services > Security Services > Cyber Security & Shared Services > * > * > *									
Org		CX&T				Bus Unit SECURITY		Dept		CX&T-SECURITY-CYBER SEC ENG & STAN	
WORK OBJECTIVES											
Problem Statement		The Company's Security Fusion Center (the Fusion Center is the Company's combined physical and cyber security operations center) is experiencing operational issues with the current physical access management system. The installation is out of date and causes inconsistent behavior when given tasks by automations within the Company's Identity Management solution. Frequent issues have been reported related to frozen jobs in the Company's existing access management solution due to the current system's database. This results in significant waste in the form of (1) waiting, the business partner is waiting much longer than they should have to for the system to process their request as un-freezing jobs is a manual process; (2) lost productivity, that waiting can cause for the business partner as it can either prevent them from accessing sites they need, or slow them down unnecessarily while they work with others to be escorted; (3) rework, because frozen jobs don't always run correctly when unfrozen, meaning the business partner has to resubmit their request and/or Identity Operations has to do additional work to satisfy the original request; and (4) alarms can cause a frozen state that impact system stability and reduces security visibility as a result. Not moving to new technology also carries a growing risk of outright system failure which could result in unauthorized physical access and/or impact the Company's ability to efficiently function. The current installation of the physical access management system and the Company's current card readers do not support next generation physical access control methods, such as digital ID. This prevents the Company from adopting new methods and practices that can lower costs and improve control and responsiveness. All employees, contractors, staff, and visitors are impacted by the problem.									
Objectives		This project creates value for the Company by: (1) developing an alarm and event monitoring system, which will enable seamless orchestration of system alarms and cameras; (2) adding automation that will streamline remediation processes and orchestrate camera operations for efficiency; (3) refining access revocation and badge access management to ensure only authorized personnel have entry privileges; (4) introducing new access control readers that will modernize the system, allowing for the use of mobile device badges for employees, contractors, and visitors, offering a more flexible and user-friendly experience for those entering the Company's facilities.									
Scope		The project scope includes modernizing the Company's current physical access control system, badge system, badge access hardware and firmware, and all 3000 card readers across facilities and assets. This will require modernization of all physical badge access readers and the implementation of hardware and software necessary to run the physical access control system. In addition, there will be substantial automation and integration between the security orchestration solution and the physical access control systems to realize the full benefits of this initiative.									
Alternatives		Alternatives considered were: (1) Keeping the current physical access control system and processes as-is. This alternative was not selected as the current platform is outdated, increasingly expensive to support, and does not include modern capabilities, such as digital IDs. It also does not reduce waste, cost, and it does not improve speed to delivery; (2) Developing a custom, in-house physical access control solution that includes modern capabilities, such as digital IDs. This option was not selected as the Company lacks the expertise to build such a solution. Custom-developed solutions have higher long-term, and generally result in significant waste, as well as lower speed to delivery; and (3) Implementing a new physical access control system that includes modern capabilities, such as digital IDs, that reduces waste and cost and improves speed to delivery. There are vendors in the market that specialize in physical access control systems that offer proven capabilities the Company is looking to implement. This option was selected as it will allow the Company to meet its objectives of lower waste, lower cost, improved speed to delivery, by implementing digital IDs and enabling tighter integration between the physical access control system and the Company's other security platforms.									
DATES (phase end)											
Initiation 1/15/2026		Project Plan & Scope Definition 2/28/2026 In-Service/Go-Live 2/26/2027				Final Engineering, Planning & Design 4/28/2026 Closeout 12/1/2029				Execution 2/25/2027	
FUNDING SUMMARY											
		2026	2027	2028	2029	2030	2031	2032	2033 +	Total	
Cap+COR		\$3,234	\$1,551	\$1,551	-	-	-	-	-	\$6,335	
O&M		\$0,328	\$0,345	\$0,345	\$0,187	-	-	-	-	\$1,205	
Total Cost of Ownership		\$3,562	\$1,896	\$1,896	\$0,187	-	-	-	-	\$7,540	
		2026	2027	2028	2029	2030	2031	2032	2033 +	Total	
Labor		\$0,419	\$0,388	\$0,388	\$0,187	-	-	-	-	\$1,382	
Outside Services		\$0,225	\$0,135	\$0,135	-	-	-	-	-	\$0,495	
Business Expense/Overheads		\$0,280	\$0,143	\$0,143	-	-	-	-	-	\$0,565	
Employee Benefits		-	-	-	-	-	-	-	-	-	
Materials		\$1,130	\$1,125	\$1,125	-	-	-	-	-	\$3,380	
Licenses, Permits & Fees		\$1,508	\$0,105	\$0,105	-	-	-	-	-	\$1,718	
Other		-	-	-	-	-	-	-	-	-	
Total Project Cost		\$3,562	\$1,896	\$1,896	\$0,187	-	-	-	-	\$7,540	
VALUE & IMPACTS SUMMARY											
FINANCIAL IMPACTS											
		2026	2027	2028	2029	2030	2031	2032	2033 +	Total	
O&M	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	\$0,328	\$0,345	\$0,345	\$0,187	-	-	-	-	\$1,205	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	\$0,328	\$0,345	\$0,345	\$0,187	-	-	-	-	\$1,205	
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	\$3,234	\$1,551	\$1,551	-	-	-	-	-	\$6,335	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	\$3,234	\$1,551	\$1,551	-	-	-	-	-	\$6,335	
Revenue	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	-	-	-	-	-	-	-	-	-	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)		-1.000									
Risk Tolerance											
Corporate Risk		Impact	Likelihood	Description							
System Failure (SAP & Other)		Medium	Medium	This system replacement will reduce current operating risk managing multiple physical access management platforms.							
OTHER VALUE											
Type		Description									
Technology Capability		Access revocation and badge access management will be refined to ensure only authorized personnel have entry privileges									
Technology Capability		Development of a sophisticated Alarm and Event monitoring system will enable seamless orchestration of system alarms and cameras. This will facilitate proactive camera monitoring and rapid response to incidents.									
Technology Capability		The impact of the project is to allow physical entry for employees, contractors, and visitors who are authorized to do work for the Company while minimizing barriers.									
Technology Capability		The new system will introduce new access control readers that will modernize the system, allowing for the use of mobile device badges for employees, contractors, and visitors, offering a more flexible and user-friendly experience for those entering the Company's facilities.									
Technology Capability		The new system will seamlessly integrate with mobile badging, allowing for efficient contractor and visitor management, which is particularly crucial during emergency situations such as storms.									
Technology Capability		The project will give the ability to integrate badge entry data with security camera data and other security platforms to perform cross system monitoring and flagging. This impact will allow the Company to build more effective alerts that can be responded to in a more deliberate manner.									

Pipeline SCADA Security		Report Pulled: 11/1/2024		Item ID: 10487					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Comply - One Time			Work Type	Project				
Alias	, Gas SCADA Cyber Security, Pipeline SCADA Security								
Description	This project will implement major modifications to the Gas Supervisory Control and Data Acquisition (SCADA) environment to ensure compliance to American Petroleum Institute (API) 1164 standard. API 1164 is an MPSC regulatory requirement with recent updates to the Gas Technical Standards. The project will implement IT, cyber security, and physical security equipment and site modifications necessary for regulatory compliance to API 1164.								
Portfolio	Corporate Services > Security Services > Security > * > * > *								
Org	CX&T	Bus Unit	SECURITY	Dept	CX&T-SECURITY-COMPLIANCE				
WORK OBJECTIVES									
Problem Statement	The MPSC requires the implementation of pipeline cyber security regulations pursuant to API 1164 on the Company natural gas pipeline system. The Company's Gas SCADA system is outdated and non-standardized, requiring significant modifications to be compliant with API 1164. Without the technology updates, the gas SCADA system is vulnerable to cyber-attacks that potentially risk disrupting delivery to customers. Interruptions in gas delivery and non-compliance to API 1164 mandated requirements could be subject to fines and penalties from the MPSC and other regulatory entities (i.e., the Transportation Security Administration).								
Objectives	This project will add value to the Company by: (1) modernizing and standardizing the Gas SCADA network at the Company's gas compressor stations and control rooms; (2) mitigating cyber security vulnerabilities in the Gas SCADA network; (3) allowing the Company to fully comply with API 1164 requirements; and (4) fulfilling the commitment to the MPSC to provide a secure gas system that meets customer needs.								
Scope	The project scope includes updates for multiple gas SCADA-related locations, including: eight gas compressor stations, two gas control rooms, two data centers, and multiple intelligent pipeline field devices. To establish compliance with API 1164, the project will: (1) design a holistic network architecture to implement both physical and technical changes; (2) implement physical enhancements to impacted facilities, such as additional closets or data rooms, and modified HVAC systems to provide necessary climate control for the SCADA equipment; (3) install additional security cameras and/or card readers necessary to control access to new and existing equipment; (4) complete technology upgrades requiring design, development, testing and implementation for the Gas SCADA network at each of the planned locations. Upgrades will consist of endpoint protection, identity and access management, vulnerability management, business continuity capabilities, cyber incident response, asset management, and commensurate test environments; and (5) implement additional security measures on field devices, including change default credentials, secure communications, change management, and patching activities.								
Alternatives	As this is a regulatory compliance requirement, there are no alternatives to completing this project. Without the completion of this project, the Company could be subject to noncompliance fines and penalties from the MPSC.								
DATES (phase end)									
Initiation 6/1/2020	Project Plan & Scope Definition 10/31/2020 In-Service/Go-Live 7/1/2022		Final Engineering, Planning & Design 3/1/2021 Closeout 10/31/2023		Execution 6/30/2022				
FUNDING SUMMARY									
	2020	2021	2022	2023	2024	2025	2026	2027 +	Total
Cap+COR	\$0.757	\$2.663	\$4.478	\$4.055	\$0.640	-	-	-	\$12.593
O&M	\$0.047	\$0.080	\$0.146	\$0.151	\$0.118	-	-	-	\$0.543
Total Cost of Ownership	\$0.804	\$2.743	\$4.624	\$4.206	\$0.757	-	-	-	\$13.136
	2020	2021	2022	2023	2024	2025	2026	2027 +	Total
Labor	\$0.096	\$0.692	\$0.881	\$1.303	\$0.325	-	-	-	\$3.296
Outside Services	\$0.319	\$0.142	\$1.029	\$1.409	\$0.235	-	-	-	\$3.135
Business Expense/Overheads	\$0.045	\$0.329	\$0.357	\$0.900	\$0.138	-	-	-	\$1.769
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	\$0.223	\$1.316	\$1.951	\$0.373	\$(0.077)	-	-	-	\$3.785
Licenses, Permits & Fees	\$0.122	\$0.263	\$0.407	\$0.222	\$0.136	-	-	-	\$1.151
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	\$0.804	\$2.743	\$4.624	\$4.206	\$0.757	-	-	-	\$13.136
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2020	2021	2022	2023	2024	2025	2026	2027 +	Total
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.047	\$0.080	\$0.146	\$0.151	\$0.118	-	-	-	\$0.543
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.047	\$0.080	\$0.146	\$0.151	\$0.118	-	-	-	\$0.543
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.757	\$2.663	\$4.478	\$4.055	\$0.640	-	-	-	\$12.593
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.757	\$2.663	\$4.478	\$4.055	\$0.640	-	-	-	\$12.593
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-1.000						
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
Unplanned Outages - Gas	High	Low	Unplanned Outage - Gas Supply (SCADA): The risk of loss of operational control of all or a portion of the gas system for an extended period due to a cyber-attack, resulting in disruption of business operations, including lost revenue, restoration costs, and reputational damage.						
Unplanned Outages - Generation	High	Low	Unplanned Outage - Generation: Risk of an unplanned outage at one or more large power plants for an extended period due to a cyber-attack						
OTHER VALUE									
Type	Description								
Technology Capability	Electric T&D, Gas T&D, Generation								
Risk Mitigation	modernizing and standardizing the Gas SCADA network at the Company's gas compressor stations and controls rooms will help mitigate unplanned outage and cyber security related risks seen with Gas Supply and Generation.								

Product Family Enhancements-Application Platforms Service Report Pulled: 11/1/2024										Item ID: 13931
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Strategic/Grow					Work Type	Portfolio			
Alias	, Product Family Enhancements-IT/Digital Foundation-Capital, Product Family Enhancements-Application Platforms and Services, Product Family Enhancements-Application Platforms and Services-Capital, Product Family Enhancements-Application Platforms Services-Capital									
Description	The IT initiative will utilize both Capital and O&M funding to make enhancements to existing software and to address requests generated by changing business requirements. O&M is included in this project to complete expense activities associated with Capital enhancements.									
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *									
Org	CX&T			Bus Unit	INFORMATION TECHNOLOGY		Dept	CX&T-IT-APPLICATION PLATFORMS & SER		
WORK OBJECTIVES										
Problem Statement	As business processes improve and change, new requirements surface that call for smaller-effort software application changes that typically emerge from new or changing business conditions, compliance requirements, needs for new capabilities, customer feedback, and other improvement ideas. Enhancing applications requires a short timeframe between inception and implementation and cannot and should not wait for rate case approval at an individual line-item level. Failure to make these changes to applications can have a direct negative impact on key customer and business processes, increase support costs, and limit the Company's ability to consistently meet objectives.									
Objectives	The value of software enhancements that benefit the IT organization lies in: (1) cost savings and cost avoidance; (2) technology and business process efficiencies; (3) improved customer experience; (4) risk mitigation; (5) safety improvements; and (6) achieving corporate goals, among others. While these small-work software efforts are neither projects nor operational work, funding for resources is still required to maintain business agility in the digital environment.									
Scope	Included in the implementation are small changes and functionality improvements to existing IT software application investments that are utilized by IT employees in support of tracking hardware and software fixes and managing technology projects for the various business areas within the Company. The scope of application enhancements encompasses: (1) making necessary system changes, and (2) updating documentation related to the changes. Additionally, enhancement requests are fulfilled to provide functionality for areas such as IT resource management, IT project management, IT financial and regulatory, IT applications operations, and IT infrastructure management.									
Alternatives	Prior to implementing an enhancement, a review is completed to identify the best solution. During that review, requests for this funding are governed by a cross-functional board comprised of representatives from each area that routinely evaluates and prioritizes the work and to assess requests for value using categorized benefits. In addition, the overall enhancements budget is reviewed annually, and the alternative of a zero-budget allocation for enhancements is considered. This project fortifies the Company's ability to make software changes as part of process improvements and regulatory changes, and to meet legally required system changes. Without funding for enhancements, the Company will be limited in its ability to quickly provide needed capabilities and improvements.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution			
	In-Service/Go-Live			Closeout						
FUNDING SUMMARY										
	2024	2025	2026	2027	2028	2029	2030	2031 +	Total	
Cap+COR	\$0.708	\$0.956	\$0.956	\$0.956	\$0.956	\$0.956	-	-	\$5.487	
O&M	\$0.230	\$0.132	\$0.306	\$0.306	\$0.306	\$0.306	-	-	\$1.586	
Total Cost of Ownership	\$0.939	\$1.088	\$1.262	\$1.262	\$1.262	\$1.262	-	-	\$7.072	
	2024	2025	2026	2027	2028	2029	2030	2031 +	Total	
Labor	\$0.882	\$0.605	\$0.779	\$0.779	\$0.779	\$0.779	-	-	\$4.603	
Outside Services	\$0.026	\$0.157	\$0.157	\$0.157	\$0.157	\$0.157	-	-	\$0.811	
Business Expense/Overheads	\$0.023	\$0.326	\$0.326	\$0.326	\$0.326	\$0.326	-	-	\$1.652	
Employee Benefits	-	-	-	-	-	-	-	-	-	
Materials	\$0.008	-	-	-	-	-	-	-	\$0.008	
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost (Annual)	\$0.939	\$1.088	\$1.262	\$1.262	\$1.262	\$1.262	-	-	\$7.072	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS										
	2024	2025	2026	2027	2028	2029	2030	2031 +	Total	
O&M										
Reduction	-	-	-	-	-	-	-	-	-	
Initial	\$0.230	\$0.132	\$0.306	\$0.306	\$0.306	\$0.306	-	-	\$1.586	
Incremental	-	-	-	-	-	-	-	-	-	
Net	\$0.230	\$0.132	\$0.306	\$0.306	\$0.306	\$0.306	-	-	\$1.586	
Cap+COR										
Reduction	-	-	-	-	-	-	-	-	-	
Initial	\$0.708	\$0.956	\$0.956	\$0.956	\$0.956	\$0.956	-	-	\$5.487	
Incremental	-	-	-	-	-	-	-	-	-	
Net	\$0.708	\$0.956	\$0.956	\$0.956	\$0.956	\$0.956	-	-	\$5.487	
Revenue										
Reduction	-	-	-	-	-	-	-	-	-	
Initial	-	-	-	-	-	-	-	-	-	
Incremental	-	-	-	-	-	-	-	-	-	
Net	-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)			-1.000							
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									
Technology Capability	Administrative & General (A&G) Support									
Intangibles	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.									

Product Family Enhancements-Application Platforms Service Report Pulled: 11/1/2024										Item ID: 13933
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Strategic/Grow					Work Type	Project			
Alias	, Product Family Enhancements-IT/Digital Foundation-O&M, Product Family Enhancements-Application Platforms and Services-O&M, Product Family Enhancements-Application Platforms Services-O&M									
Description	The IT initiative will utilize O&M funding to make enhancements to existing software and to address requests generated by changing business requirements.									
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *									
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY			Dept	CX&T-IT-APPLICATION PLATFORMS & SERV			
WORK OBJECTIVES										
Problem Statement	As business processes improve and change, new requirements surface that call for smaller-effort software application changes that typically emerge from new or changing business conditions, compliance requirements, needs for new capabilities, customer feedback, and other improvement ideas. Enhancing applications requires a short timeframe between inception and implementation and cannot and should not wait for rate case approval at an individual line-item level. Failure to make these changes to applications can have a direct negative impact on key customer and business processes, increase support costs, and limit the Company's ability to consistently meet objectives.									
Objectives	The value of software enhancements that benefit the IT organization lies in: (1) cost savings and cost avoidance; (2) technology and business process efficiencies; (3) improved customer experience; (4) risk mitigation; (5) safety improvements; and (6) achieving corporate goals, among others. While these small-work software efforts are neither projects nor operational work, funding for resources is still required to maintain business agility in the digital environment.									
Scope	Included in the implementation are small changes and functionality improvements to existing IT software application investments that are utilized by IT employees in support of tracking hardware and software fixes and managing technology projects for the various business areas within the Company. The scope of application enhancements encompasses: (1) making necessary system changes, and (2) updating documentation related to the changes. Additionally, enhancement requests are fulfilled to provide functionality for areas such as IT resource management, IT project management, IT financial and regulatory, IT applications operations, and IT infrastructure management.									
Alternatives	Prior to implementing an enhancement, a review is completed to identify the best solution. During that review, requests for this funding are governed by a cross-functional board comprised of representatives from each area that routinely evaluates and prioritizes the work and to assess requests for value using categorized benefits. In addition, the overall enhancements budget is reviewed annually, and the alternative of a zero-budget allocation for enhancements is considered. This project fortifies the Company's ability to make software changes as part of process improvements and regulatory changes, and to meet legally required system changes. Without funding for enhancements, the Company will be limited in its ability to quickly provide needed capabilities and improvements.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution			
	In-Service/Go-Live			Closeout						
FUNDING SUMMARY										
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Cap+COR	-	-	-	-	-	-	-	-	-	
O&M	\$0.000	\$0.390	\$0.289	\$0.115	\$0.115	\$0.115	\$0.115	-	\$1.139	
Total Cost of Ownership	\$0.000	\$0.390	\$0.289	\$0.115	\$0.115	\$0.115	\$0.115	-	\$1.139	
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Labor	\$0.000	\$0.384	\$0.245	\$0.107	\$0.107	\$0.107	\$0.107	-	\$1.059	
Outside Services	-	-	-	-	-	-	-	-	-	
Business Expense/Overheads	\$0.000	\$0.006	\$0.044	\$0.008	\$0.008	\$0.008	\$0.008	-	\$0.080	
Employee Benefits	-	-	-	-	-	-	-	-	-	
Materials	-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost (Annual)	\$0.000	\$0.390	\$0.289	\$0.115	\$0.115	\$0.115	\$0.115	-	\$1.139	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS										
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
O&M										
Reduction	-	-	-	-	-	-	-	-	-	
Initial	\$0.000	\$0.390	\$0.289	\$0.115	\$0.115	\$0.115	\$0.115	-	\$1.139	
Incremental	-	-	-	-	-	-	-	-	-	
Net	\$0.000	\$0.390	\$0.289	\$0.115	\$0.115	\$0.115	\$0.115	-	\$1.139	
Cap+COR										
Reduction	-	-	-	-	-	-	-	-	-	
Initial	-	-	-	-	-	-	-	-	-	
Incremental	-	-	-	-	-	-	-	-	-	
Net	-	-	-	-	-	-	-	-	-	
Revenue										
Reduction	-	-	-	-	-	-	-	-	-	
Initial	-	-	-	-	-	-	-	-	-	
Incremental	-	-	-	-	-	-	-	-	-	
Net	-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)			-1.000							
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									
Technology Capability	Administrative & General (A&G) Support									
Intangibles	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.									

Product Family Enhancements-Corporate-Capital				Report Pulled: 11/1/2024				Item ID: 13372			
EXECUTIVE SUMMARY											
BASIC INFORMATION											
Work Category		Strategic/Grow				Work Type				Project	
Alias		, Product Family Enhancements-Corporate-Capital									
Description		The Corporate Services initiative will utilize both Capital and O&M funding to make enhancements to existing software and to address requests generated by changing business requirements. O&M is included in this project to complete expense activities associated with Capital enhancements.The Corporate Services initiative will utilize both Capital and O&M funding to make enhancements to existing software and to address requests generated by changing business requirements. O&M is included in this project to complete expense activities associated with Capital enhancements.									
Portfolio		IT Services > Applications > Corporate Services > * > * > *									
Org		CX&T	Bus Unit		INFORMATION TECHNOLOGY		Dept		CX&T-IT-CORPORATE		
WORK OBJECTIVES											
Problem Statement		As business processes improve and change, new requirements surface that call for smaller-effort software application changes that typically emerge from new or changing business conditions, compliance requirements, needs for new capabilities, customer feedback, and other improvement ideas Enhancing applications requires a short timeframe between inception and implementation and cannot and should not wait for rate case approval at an individual line-item level. Failure to make these changes to applications can have a direct negative impact on key customer and business processes, increase support costs, and limit the Company's ability to consistently meet objectives.									
Objectives		The value of software enhancements in the Corporate Services Portfolio lies in: (1) cost savings and cost avoidance; (2) technology and business process efficiencies; (3) improved customer experience; (4) risk mitigation; (5) safety improvements; and (6) achieving corporate goals, among others. While these small-work software efforts are neither projects nor operational work, funding for resources is still required to maintain business agility in the digital environment. Included in the implementation are small changes and functionality improvements to existing IT software application investments for Corporate Services.									
Scope		The scope of application enhancements encompasses: (1) making necessary system changes, and (2) updating documentation related to the changes. Additionally, enhancement requests are fulfilled to provide functionality for areas such as People and Culture (Human Resources), Legal, Finance and Governmental, Regulatory and, Public Affairs.									
Alternatives		Prior to implementing an enhancement, a review is completed to identify the best solution. During that review, requests for this funding are governed by a cross-functional board comprised of representatives from each area that routinely evaluates and prioritizes the work and to assess requests for value using categorized benefits. In addition, the overall enhancements budget is reviewed annually, and the alternative of a zero-budget allocation for enhancements is considered. This project fortifies the Company's ability to make software changes as part of process improvements and regulatory changes, and to meet legally required system changes. Without funding for enhancements, the Company will be limited in its ability to quickly provide needed capabilities and improvements.									
DATES (phase end)											
Initiation		Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution			
		In-Service/Go-Live			Closeout						
FUNDING SUMMARY											
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Cap+COR		\$0.929	\$1.814	\$3.849	\$2.929	\$2.929	\$2.929	\$2.929	-	\$18.309	
O&M		\$0.036	\$0.119	\$0.552	\$0.418	\$0.418	\$0.418	\$0.418	-	\$2.382	
Total Cost of Ownership		\$0.965	\$1.933	\$4.401	\$3.348	\$3.348	\$3.348	\$3.348	-	\$20.691	
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Labor		\$0.134	\$1.056	\$2.976	\$2.251	\$2.251	\$2.251	\$2.251	-	\$13.170	
Outside Services		\$0.748	\$0.376	\$0.063	\$0.063	\$0.063	\$0.063	\$0.063	-	\$1.438	
Business Expense/Overheads		\$0.084	\$0.061	\$1.362	\$1.034	\$1.034	\$1.034	\$1.034	-	\$5.643	
Employee Benefits		-	-	-	-	-	-	-	-	-	
Materials		-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees		-	\$0.440	-	-	-	-	-	-	\$0.440	
Other		-	-	-	-	-	-	-	-	-	
Total Project Cost (Annual)		\$0.965	\$1.933	\$4.401	\$3.348	\$3.348	\$3.348	\$3.348	-	\$20.691	
VALUE & IMPACTS SUMMARY											
FINANCIAL IMPACTS											
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
O&M											
Reduction		-	-	-	-	-	-	-	-	-	
Initial		\$0.036	\$0.119	\$0.552	\$0.418	\$0.418	\$0.418	\$0.418	-	\$2.382	
Incremental		-	-	-	-	-	-	-	-	-	
Net		\$0.036	\$0.119	\$0.552	\$0.418	\$0.418	\$0.418	\$0.418	-	\$2.382	
Cap+COR											
Reduction		-	-	-	-	-	-	-	-	-	
Initial		\$0.929	\$1.814	\$3.849	\$2.929	\$2.929	\$2.929	\$2.929	-	\$18.309	
Incremental		-	-	-	-	-	-	-	-	-	
Net		\$0.929	\$1.814	\$3.849	\$2.929	\$2.929	\$2.929	\$2.929	-	\$18.309	
Revenue											
Reduction		-	-	-	-	-	-	-	-	-	
Initial		-	-	-	-	-	-	-	-	-	
Incremental		-	-	-	-	-	-	-	-	-	
Net		-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)		-1.000									
Risk Tolerance											
Corporate Risk	Impact	Likelihood	Description								
OTHER VALUE											
Type	Description										

Product Family Enhancements-Corporate-O&M			Report Pulled: 11/1/2024			Item ID: 13373			
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow					Work Type	Project		
Alias	, Product Family Enhancements-Corporate-O&M								
Description	The Corporate Services initiative will utilize both Capital and O&M funding to make enhancements to existing software and to address requests generated by changing business requirements. O&M is included in this project to complete expense activities associated with Capital enhancements.								
Portfolio	IT Services > Applications > Corporate Services > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY			Dept	CX&T-IT-CORPORATE		
WORK OBJECTIVES									
Problem Statement	As business processes improve and change, new requirements surface that call for smaller-effort software application changes that typically emerge from new or changing business conditions, compliance requirements, needs for new capabilities, customer feedback, and other improvement ideas. Enhancing applications requires a short timeframe between inception and implementation and cannot and should not wait for rate case approval at an individual line-item level. Failure to make these changes to applications can have a direct negative impact on key customer and business processes, increase support costs, and limit the Company's ability to consistently meet objectives.								
Objectives	The value of software enhancements in the Corporate Services Portfolio lies in: (1) cost savings and cost avoidance; (2) technology and business process efficiencies; (3) improved customer experience; (4) risk mitigation; (5) safety improvements; and (6) achieving corporate goals, among others. While these small-work software efforts are neither projects nor operational work, funding for resources is still required to maintain business agility in the digital environment. Included in the implementation are small changes and functionality improvements to existing IT software application investments for Corporate Services.								
Scope	The scope of application enhancements encompasses: (1) making necessary system changes, and (2) updating documentation related to the changes. Additionally, enhancement requests are fulfilled to provide functionality for areas such as People and Culture (Human Resources), Legal, Finance and Governmental, Regulatory and, Public Affairs.								
Alternatives	Prior to implementing an enhancement, a review is completed to identify the best solution. During that review, requests for this funding are governed by a cross-functional board comprised of representatives from each area that routinely evaluates and prioritizes the work and to assess requests for value using categorized benefits. In addition, the overall enhancements budget is reviewed annually, and the alternative of a zero-budget allocation for enhancements is considered. This project fortifies the Company's ability to make software changes as part of process improvements and regulatory changes, and to meet legally required system changes. Without funding for enhancements, the Company will be limited in its ability to quickly provide needed capabilities and improvements.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution		
	In-Service/Go-Live			Closeout					
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	-	-	-	-	-	-	-	-	-
O&M	\$0.212	\$0.185	\$0.556	\$0.459	\$0.345	\$0.345	\$0.345	-	\$2.447
Total Cost of Ownership	\$0.212	\$0.185	\$0.556	\$0.459	\$0.345	\$0.345	\$0.345	-	\$2.447
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	\$0.106	\$0.049	\$0.519	\$0.429	\$0.323	\$0.323	\$0.323	-	\$2.071
Outside Services	\$0.093	\$0.133	-	-	-	-	-	-	\$0.226
Business Expense/Overheads	\$0.013	\$0.003	\$0.036	\$0.030	\$0.023	\$0.023	\$0.023	-	\$0.150
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)	\$0.212	\$0.185	\$0.556	\$0.459	\$0.345	\$0.345	\$0.345	-	\$2.447
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.212	\$0.185	\$0.556	\$0.459	\$0.345	\$0.345	\$0.345	-	\$2.447
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.212	\$0.185	\$0.556	\$0.459	\$0.345	\$0.345	\$0.345	-	\$2.447
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall) -1.000									
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								

Product Family Enhancements-Customer-Capital		Report Pulled: 11/1/2024		Item ID: 13374					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow			Work Type	Project				
Alias	, Product Family Enhancements-Customer-Capital								
Description	The Customer initiative will utilize both Capital and O&M funding to make enhancements to existing software and to address requests generated by changing business requirements. O&M is included in this project to complete expense activities associated with Capital enhancements.								
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-CUSTOMER EXP & OPS				
WORK OBJECTIVES									
Problem Statement	As business processes improve and change, new requirements surface that call for smaller-effort software application changes that typically emerge from new or changing business conditions, compliance requirements, needs for new capabilities, customer feedback, and other improvement ideas Enhancing applications requires a short timeframe between inception and implementation and cannot and should not wait for rate case approval at an individual line-item level. Failure to make these changes to applications can have a direct negative impact on key customer and business processes, increase support costs, and limit the Company's ability to consistently meet objectives.								
Objectives	The value of software enhancements in the Customer Portfolio lies in: (1) cost savings and cost avoidance; (2) technology and business process efficiencies; (3) improved customer experience; (4) risk mitigation; (5) safety improvements; and (6) achieving corporate goals, among others. While these small-work software efforts are neither projects nor operational work, funding for resources is still required to maintain business agility in the digital environment.								
Scope	Included in the implementation are small changes and functionality improvements to existing IT software application investments for Customer. The scope of application enhancements encompasses: (1) making necessary system changes, and (2) updating documentation related to the changes. Additionally, enhancement requests are fulfilled to provide functionality for areas such as Customer Experience and Operations, Applications Support and, Device Management.								
Alternatives	Prior to implementing an enhancement, a review is completed to identify the best solution. During that review, requests for this funding are governed by a cross-functional board comprised of representatives from each area that routinely evaluates and prioritizes the work and to assess requests for value using categorized benefits. In addition, the overall enhancements budget is reviewed annually, and the alternative of a zero-budget allocation for enhancements is considered. This project fortifies the Company's ability to make software changes as part of process improvements and regulatory changes, and to meet legally required system changes. Without funding for enhancements, the Company will be limited in its ability to quickly provide needed capabilities and improvements.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
	In-Service/Go-Live		Closeout						
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	\$0.246	\$1.733	\$7.711	\$5.821	\$4.748	\$4.748	\$4.748	-	\$29.755
O&M	\$0.019	\$0.825	\$0.907	\$0.757	\$0.682	\$0.682	\$0.682	-	\$4.555
Total Cost of Ownership	\$0.266	\$2.558	\$8.618	\$6.578	\$5.430	\$5.430	\$5.430	-	\$34.310
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	\$0.049	\$0.207	\$4.467	\$2.958	\$2.188	\$2.188	\$2.188	-	\$14.244
Outside Services	\$0.216	\$2.252	\$2.140	\$2.336	\$2.336	\$2.336	\$2.336	-	\$13.952
Business Expense/Overheads	\$0.001	\$0.100	\$2.011	\$1.284	\$0.907	\$0.907	\$0.907	-	\$6.115
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)	\$0.266	\$2.558	\$8.618	\$6.578	\$5.430	\$5.430	\$5.430	-	\$34.310
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.019	\$0.825	\$0.907	\$0.757	\$0.682	\$0.682	\$0.682	-	\$4.555
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.019	\$0.825	\$0.907	\$0.757	\$0.682	\$0.682	\$0.682	-	\$4.555
Cap+COR	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.246	\$1.733	\$7.711	\$5.821	\$4.748	\$4.748	\$4.748	-	\$29.755
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.246	\$1.733	\$7.711	\$5.821	\$4.748	\$4.748	\$4.748	-	\$29.755
Revenue	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000							
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Technology Capability	Administrative & General (A&G) Support								
Intangibles	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.								

Product Family Enhancements-Customer-O&M		Report Pulled: 11/1/2024		Item ID: 13375					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow			Work Type	Project				
Alias	. Product Family Enhancements-Customer-O&M								
Description	The Customer initiative will utilize O&M funding to make enhancements to existing software and to address requests generated by changing business requirements.								
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-CUSTOMER EXP & OPS				
WORK OBJECTIVES									
Problem Statement	As business processes improve and change, new requirements surface that call for smaller-effort software application changes that typically emerge from new or changing business conditions, compliance requirements, needs for new capabilities, customer feedback, and other improvement ideas. Enhancing applications requires a short timeframe between inception and implementation and cannot and should not wait for rate case approval at an individual line-item level. Failure to make these changes to applications can have a direct negative impact on key customer and business processes, increase support costs, and limit the Company's ability to consistently meet objectives.								
Objectives	The value of software enhancements in the Customer Portfolio lies in: (1) cost savings and cost avoidance; (2) technology and business process efficiencies; (3) improved customer experience; (4) risk mitigation; (5) safety improvements; and (6) achieving corporate goals, among others. While these small-work software efforts are neither projects nor operational work, funding for resources is still required to maintain business agility in the digital environment.								
Scope	Included in the implementation are small changes and functionality improvements to existing IT software application investments for Customer. The scope of application enhancements encompasses: (1) making necessary system changes, and (2) updating documentation related to the changes. Additionally, enhancement requests are fulfilled to provide functionality for areas such as Customer Experience and Operations, Applications Support and, Device Management.								
Alternatives	Prior to implementing an enhancement, a review is completed to identify the best solution. During that review, requests for this funding are governed by a cross-functional board comprised of representatives from each area that routinely evaluates and prioritizes the work and to assess requests for value using categorized benefits. In addition, the overall enhancements budget is reviewed annually, and the alternative of a zero-budget allocation for enhancements is considered. This project fortifies the Company's ability to make software changes as part of process improvements and regulatory changes, and to meet legally required system changes. Without funding for enhancements, the Company will be limited in its ability to quickly provide needed capabilities and improvements.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
	In-Service/Go-Live		Closeout						
FUNDING SUMMARY									
Cap+COR	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	\$0.387	\$0.034	\$0.434	\$0.434	\$0.434	\$0.434	\$0.434	-	\$2.592
Total Cost of Ownership	\$0.387	\$0.034	\$0.434	\$0.434	\$0.434	\$0.434	\$0.434	-	\$2.592
Labor	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Outside Services	\$0.024	\$0.002	\$0.269	\$0.269	\$0.269	\$0.269	\$0.269	-	\$1.371
Business Expense/Overheads	\$0.337	\$0.031	\$0.088	\$0.088	\$0.088	\$0.088	\$0.088	-	\$0.806
Employee Benefits	\$0.025	\$0.001	\$0.078	\$0.078	\$0.078	\$0.078	\$0.078	-	\$0.415
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)	\$0.387	\$0.034	\$0.434	\$0.434	\$0.434	\$0.434	\$0.434	-	\$2.592
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
O&M	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.387	\$0.034	\$0.434	\$0.434	\$0.434	\$0.434	\$0.434	-	\$2.592
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.387	\$0.034	\$0.434	\$0.434	\$0.434	\$0.434	\$0.434	-	\$2.592
Cap+COR	Reduction	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
Revenue	Reduction	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-1.000						
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Technology Capability	Administrative & General (A&G) Support								
Intangibles	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.								

Product Family Enhancements-Electric & Gas Shared-Capit: Report Pulled: 11/1/2024										Item ID: 13376
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Strategic/Grow					Work Type	Project			
Alias	, Product Family Enhancements-Electric & Gas Shared-Capital									
Description	The Electric and Gas operations initiative will utilize both Capital and O&M funding to make enhancements to existing software and to address requests generated by changing business requirements. O&M is included in this project to complete expense activities associated with Capital enhancements.									
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *									
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY				Dept	CX&T-IT-WORK MANAGEMENT		
WORK OBJECTIVES										
Problem Statement	As business processes improve and change, new requirements surface that call for smaller-effort software application changes that typically emerge from new or changing business conditions, compliance requirements, needs for new capabilities, customer feedback, and other improvement ideas Enhancing applications requires a short timeframe between inception and implementation and cannot and should not wait for rate case approval at an individual line-item level. Failure to make these changes to applications can have a direct negative impact on key customer and business processes, increase support costs, and limit the Company's ability to consistently meet objectives.									
Objectives	The value of software enhancements in Electric and Gas operations lies in: (1) cost savings and cost avoidance; (2) technology and business process efficiencies; (3) improved customer experience; (4) risk mitigation; (5) safety improvements; and (6) achieving corporate goals, among others. While these small-work software efforts are neither projects nor operational work, funding for resources is still required to maintain business agility in the digital environment.									
Scope	Included in the implementation are small changes and functionality improvements to existing IT software application investments for Electric and Gas Operations. The scope of application enhancements encompasses: (1) making necessary system changes, and (2) updating documentation related to the changes. Additionally, enhancement requests are fulfilled to provide functionality for areas such as Electric, Gas and Generation Operations, Operations Performance, Operations and Financial Reporting and, Operations Compliance and Controls.									
Alternatives	Prior to implementing an enhancement, a review is completed to identify the best solution. During that review, requests for this funding are governed by a cross-functional board comprised of representatives from each area that routinely evaluates and prioritizes the work and to assess requests for value using categorized benefits. In addition, the overall enhancements budget is reviewed annually, and the alternative of a zero-budget allocation for enhancements is considered. This project fortifies the Companys ability to make software changes as part of process improvements and regulatory changes, and to meet legally required system changes. Without funding for enhancements, the Company will be limited in its ability to quickly provide needed capabilities and improvements.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition				Final Engineering, Planning & Design			Execution		
	In-Service/Go-Live				Closeout					
FUNDING SUMMARY										
		<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030 +</u>	<u>Total</u>
Cap+COR		\$0.113	\$1.374	\$0.848	\$0.848	\$0.848	\$0.848	\$0.668	-	\$5.549
O&M		-	\$0.184	\$0.065	\$0.065	\$0.065	\$0.065	\$0.063	-	\$0.507
Total Cost of Ownership		\$0.113	\$1.558	\$0.914	\$0.914	\$0.914	\$0.914	\$0.731	-	\$6.057
		<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030 +</u>	<u>Total</u>
Labor		\$0.027	\$0.814	\$0.123	\$0.123	\$0.123	\$0.123	\$0.123	-	\$1.458
Outside Services		\$0.073	\$0.703	\$0.390	\$0.390	\$0.390	\$0.390	\$0.390	-	\$2.726
Business Expense/Overheads		\$0.013	\$0.042	\$0.362	\$0.362	\$0.362	\$0.362	\$0.179	-	\$1.681
Employee Benefits		-	-	-	-	-	-	-	-	-
Materials		-	-	\$0.039	\$0.039	\$0.039	\$0.039	\$0.039	-	\$0.193
Licenses, Permits & Fees		-	-	-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)		\$0.113	\$1.558	\$0.914	\$0.914	\$0.914	\$0.914	\$0.731	-	\$6.057
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS										
		<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030 +</u>	<u>Total</u>
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	\$0.184	\$0.065	\$0.065	\$0.065	\$0.065	\$0.063	-	\$0.507
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	\$0.184	\$0.065	\$0.065	\$0.065	\$0.065	\$0.063	-	\$0.507
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.113	\$1.374	\$0.848	\$0.848	\$0.848	\$0.848	\$0.668	-	\$5.549
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.113	\$1.374	\$0.848	\$0.848	\$0.848	\$0.848	\$0.668	-	\$5.549
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000								
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									
Technology Capability	Administrative & General (A&G) Support									
Intangibles	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.									

Product Family Enhancements-Electric & Gas Shared-O&M Report Pulled: 11/1/2024										Item ID: 13377
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Strategic/Grow						Work Type	Project		
Alias	, Product Family Enhancements-Electric & Gas Shared-O&M									
Description	The Electric and Gas operations initiative will utilize O&M funding to make enhancements to existing software and to address requests generated by changing business requirements.									
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *									
Org	CX&T			Bus Unit	INFORMATION TECHNOLOGY			Dept	CX&T-IT-WORK MANAGEMENT	
WORK OBJECTIVES										
Problem Statement	As business processes improve and change, new requirements surface that call for smaller-effort software application changes that typically emerge from new or changing business conditions, compliance requirements, needs for new capabilities, customer feedback, and other improvement ideas. Enhancing applications requires a short timeframe between inception and implementation and cannot and should not wait for rate case approval at an individual line-item level. Failure to make these changes to applications can have a direct negative impact on key customer and business processes, increase support costs, and limit the Company's ability to consistently meet objectives.									
Objectives	The value of software enhancements in Electric and Gas Operations lies in: (1) cost savings and cost avoidance; (2) technology and business process efficiencies; (3) improved customer experience; (4) risk mitigation; (5) safety improvements; and (6) achieving corporate goals, among others. While these small-work software efforts are neither projects nor operational work, funding for resources is still required to maintain business agility in the digital environment. Included in the implementation are small changes and functionality improvements to existing IT software application investments for Electric and Gas Operations.									
Scope	The scope of application enhancements encompasses: (1) making necessary system changes, and (2) updating documentation related to the changes. Additionally, enhancement requests are fulfilled to provide functionality for areas such as Electric, Gas and Generation Operations, Operations Performance, Operations and Financial Reporting and, Operations Compliance and Controls.									
Alternatives	Prior to implementing an enhancement, a review is completed to identify the best solution. During that review, requests for this funding are governed by a cross-functional board comprised of representatives from each area that routinely evaluates and prioritizes the work and to assess requests for value using categorized benefits. In addition, the overall enhancements budget is reviewed annually, and the alternative of a zero-budget allocation for enhancements is considered. This project fortifies the Company's ability to make software changes as part of process improvements and regulatory changes, and to meet legally required system changes. Without funding for enhancements, the Company will be limited in its ability to quickly provide needed capabilities and improvements.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition			Final Engineering, Planning & Design				Execution		
	In-Service/Go-Live			Closeout						
FUNDING SUMMARY										
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Cap+COR										
O&M	\$0.029	\$0.038	\$0.183	\$0.183	\$0.183	\$0.183	\$0.183	-	\$0.984	
Total Cost of Ownership	\$0.029	\$0.038	\$0.183	\$0.183	\$0.183	\$0.183	\$0.183	-	\$0.984	
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Labor	\$0.010	\$0.019	\$0.155	\$0.155	\$0.155	\$0.155	\$0.155	-	\$0.803	
Outside Services	\$0.017	\$0.017	\$0.014	\$0.014	\$0.014	\$0.014	\$0.014	-	\$0.103	
Business Expense/Overheads	\$0.002	\$0.001	\$0.012	\$0.012	\$0.012	\$0.012	\$0.012	-	\$0.064	
Employee Benefits	-	-	-	-	-	-	-	-	-	
Materials	-	-	\$0.003	\$0.003	\$0.003	\$0.003	\$0.003	-	\$0.013	
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost (Annual)	\$0.029	\$0.038	\$0.183	\$0.183	\$0.183	\$0.183	\$0.183	-	\$0.984	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS										
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
O&M										
Reduction	-	-	-	-	-	-	-	-	-	
Initial	\$0.029	\$0.038	\$0.183	\$0.183	\$0.183	\$0.183	\$0.183	-	\$0.984	
Incremental	-	-	-	-	-	-	-	-	-	
Net	\$0.029	\$0.038	\$0.183	\$0.183	\$0.183	\$0.183	\$0.183	-	\$0.984	
Cap+COR										
Reduction	-	-	-	-	-	-	-	-	-	
Initial	-	-	-	-	-	-	-	-	-	
Incremental	-	-	-	-	-	-	-	-	-	
Net	-	-	-	-	-	-	-	-	-	
Revenue										
Reduction	-	-	-	-	-	-	-	-	-	
Initial	-	-	-	-	-	-	-	-	-	
Incremental	-	-	-	-	-	-	-	-	-	
Net	-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)			-1.000							
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									
Technology Capability	Administrative & General (A&G) Support									
Intangibles	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.									

Product Family Enhancements-Gas-Capital				Report Pulled: 11/1/2024				Item ID: 13380	
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow				Work Type	Project			
Alias	, Product Family Enhancements-Gas-Capital								
Description	The Gas Engineering and Operations initiative will utilize both Capital and O&M funding to make enhancements to existing software and to address requests generated by changing business requirements. O&M is included in this project to complete expense activities associated with Capital enhancements.								
Portfolio	IT Services > Applications > Gas Delivery Systems > * > * > *								
Org	CX&T			Bus Unit	INFORMATION TECHNOLOGY		Dept	CX&T-IT-GAS	
WORK OBJECTIVES									
Problem Statement	As business processes improve and change, new requirements surface that call for smaller-effort software application changes that typically emerge from new or changing business conditions, compliance requirements, needs for new capabilities, customer feedback, and other improvement ideas. Enhancing applications requires a short timeframe between inception and implementation and cannot and should not wait for rate case approval at an individual line-item level. Failure to make these changes to applications can have a direct negative impact on key customer and business processes, increase support costs, and limit the Company's ability to consistently meet objectives.								
Objectives	The value of software enhancements in Gas Engineering and Operations lies in: (1) cost savings and cost avoidance; (2) technology and business process efficiencies; (3) improved customer experience; (4) risk mitigation; (5) safety improvements; and (6) achieving corporate goals, among others. While these small-work software efforts are neither projects nor operational work, funding for resources is still required to maintain business agility in the digital environment.								
Scope	Included in the implementation are small changes and functionality improvements to existing IT software application investments for Gas Engineering and Operations. The scope of application enhancements encompasses: (1) making necessary system changes, and (2) updating documentation related to the changes. Additionally, enhancement requests are fulfilled to provide functionality for areas such as Gas Engineering and Operations, Operations Performance, Operations and Financial Reporting and, Operations Compliance and Controls.								
Alternatives	Prior to implementing an enhancement, a review is completed to identify the best solution. During that review, requests for this funding are governed by a cross-functional board comprised of representatives from each area that routinely evaluates and prioritizes the work and to assess requests for value using categorized benefits. In addition, the overall enhancements budget is reviewed annually, and the alternative of a zero-budget allocation for enhancements is considered. This project fortifies the Company's ability to make software changes as part of process improvements and regulatory changes, and to meet legally required system changes. Without funding for enhancements, the Company will be limited in its ability to quickly provide needed capabilities and improvements.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution		
	In-Service/Go-Live			Closeout					
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	\$0.309	\$0.428	\$0.680	\$1.523	\$0.680	\$0.680	\$0.680	-	\$4.980
O&M	-	\$0.088	\$0.085	\$0.182	\$0.085	\$0.085	\$0.085	-	\$0.612
Total Cost of Ownership	\$0.309	\$0.516	\$0.765	\$1.705	\$0.765	\$0.765	\$0.765	-	\$5.592
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	\$0.082	\$0.191	\$0.293	\$0.933	\$0.293	\$0.293	\$0.293	-	\$2.381
Outside Services	\$0.185	\$0.282	\$0.187	\$0.187	\$0.187	\$0.187	\$0.187	-	\$1.403
Business Expense/Overheads	\$0.042	\$0.042	\$0.285	\$0.585	\$0.285	\$0.285	\$0.285	-	\$1.808
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)	\$0.309	\$0.516	\$0.765	\$1.705	\$0.765	\$0.765	\$0.765	-	\$5.592
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	\$0.088	\$0.085	\$0.182	\$0.085	\$0.085	\$0.085	-	\$0.612
Incremental	-	-	-	-	-	-	-	-	-
Net	-	\$0.088	\$0.085	\$0.182	\$0.085	\$0.085	\$0.085	-	\$0.612
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.309	\$0.428	\$0.680	\$1.523	\$0.680	\$0.680	\$0.680	-	\$4.980
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.309	\$0.428	\$0.680	\$1.523	\$0.680	\$0.680	\$0.680	-	\$4.980
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-1.000						
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Technology Capability	Administrative & General (A&G) Support								
Intangibles	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.								

Product Family Enhancements-Gas-O&M		Report Pulled: 11/1/2024		Item ID: 13381					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow			Work Type	Project				
Alias	, Product Family Enhancements-Gas-O&M								
Description	The Gas Engineering and Operations initiative will utilize O&M funding to make enhancements to existing software and to address requests generated by changing business requirements.								
Portfolio	IT Services > Applications > Gas Delivery Systems > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-GAS				
WORK OBJECTIVES									
Problem Statement	As business processes improve and change, new requirements surface that call for smaller-effort software application changes that typically emerge from new or changing business conditions, compliance requirements, needs for new capabilities, customer feedback, and other improvement ideas. Enhancing applications requires a short timeframe between inception and implementation and cannot and should not wait for rate case approval at an individual line-item level. Failure to make these changes to applications can have a direct negative impact on key customer and business processes, increase support costs, and limit the Company's ability to consistently meet objectives.								
Objectives	The value of software enhancements in Gas Engineering and Operations lies in: (1) cost savings and cost avoidance; (2) technology and business process efficiencies; (3) improved customer experience; (4) risk mitigation; (5) safety improvements; and (6) achieving corporate goals, among others. While these small-work software efforts are neither projects nor operational work, funding for resources is still required to maintain business agility in the digital environment. Included in the implementation are small changes and functionality improvements to existing IT software application investments for Gas Engineering and Operations.								
Scope	The scope of application enhancements encompasses: (1) making necessary system changes, and (2) updating documentation related to the changes. Additionally, enhancement requests are fulfilled to provide functionality for areas such as Gas Engineering and Operations, Operations Performance, Operations and Financial Reporting and, Operations Compliance and Controls.								
Alternatives	Prior to implementing an enhancement, a review is completed to identify the best solution. During that review, requests for this funding are governed by a cross-functional board comprised of representatives from each area that routinely evaluates and prioritizes the work and to assess requests for value using categorized benefits. In addition, the overall enhancements budget is reviewed annually, and the alternative of a zero-budget allocation for enhancements is considered. This project fortifies the Company's ability to make software changes as part of process improvements and regulatory changes, and to meet legally required system changes. Without funding for enhancements, the Company will be limited in its ability to quickly provide needed capabilities and improvements.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
	In-Service/Go-Live		Closeout						
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	-	-	-	-	-	-	-	-	-
O&M	\$0.235	\$0.002	\$0.239	\$0.239	\$0.239	\$0.239	\$0.239	-	\$1.434
Total Cost of Ownership	\$0.235	\$0.002	\$0.239	\$0.239	\$0.239	\$0.239	\$0.239	-	\$1.434
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	\$0.066	-	\$0.202	\$0.202	\$0.202	\$0.202	\$0.202	-	\$1.076
Outside Services	\$0.155	\$0.002	\$0.013	\$0.013	\$0.013	\$0.013	\$0.013	-	\$0.223
Business Expense/Overheads	\$0.014	\$0.000	\$0.020	\$0.020	\$0.020	\$0.020	\$0.020	-	\$0.114
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	\$0.004	\$0.004	\$0.004	\$0.004	\$0.004	-	\$0.021
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)	\$0.235	\$0.002	\$0.239	\$0.239	\$0.239	\$0.239	\$0.239	-	\$1.434
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.235	\$0.002	\$0.239	\$0.239	\$0.239	\$0.239	\$0.239	-	\$1.434
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.235	\$0.002	\$0.239	\$0.239	\$0.239	\$0.239	\$0.239	-	\$1.434
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-1.000						
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Technology Capability	Administrative & General (A&G) Support								
Intangibles	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.								

Product Family Enhancements-Infrastructure Platforms Serv Report Pulled: 11/1/2024										Item ID: 13932
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Strategic/Grow						Work Type	Portfolio		
Alias	, Product Family Enhancements-IT/Digital Foundation-Capital, Product Family Enhancements-Application Platforms and Services, Product Family Enhancements-Infrastructure Platforms and Services-Capital, Product Family Enhancements-Infrastructure Platforms Services-Capital									
Description	The IT initiative will utilize both Capital and O&M funding to make enhancements to existing software & hardware and to address requests generated by changing business requirements. O&M is included in this project to complete expense activities associated with Capital enhancements.									
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *									
Org	CX&T			Bus Unit	INFORMATION TECHNOLOGY			Dept	CX&T-IT-INFRASTRUCTURE PLATFORMS &	
WORK OBJECTIVES										
Problem Statement	As business processes improve and change, new requirements surface that call for smaller-effort software application changes that typically emerge from new or changing business conditions, compliance requirements, needs for new capabilities, customer feedback, and other improvement ideas. Enhancing applications requires a short timeframe between inception and implementation and cannot and should not wait for rate case approval at an individual line-item level. Failure to make these changes to applications can have a direct negative impact on key customer and business processes, increase support costs, and limit the Company's ability to consistently meet objectives.									
Objectives	The value of software enhancements that benefit the IT organization lies in: (1) cost savings and cost avoidance; (2) technology and business process efficiencies; (3) improved customer experience; (4) risk mitigation; (5) safety improvements; and (6) achieving corporate goals, among others. While these small-work software efforts are neither projects nor operational work, funding for resources is still required to maintain business agility in the digital environment.									
Scope	Included in the implementation are small changes and functionality improvements to existing IT software application investments that are utilized by IT employees in support of tracking hardware and software fixes and managing technology projects for the various business areas within the Company. The scope of application enhancements encompasses: (1) making necessary system changes, and (2) updating documentation related to the changes. Additionally, enhancement requests are fulfilled to provide functionality for areas such as IT resource management, IT project management, IT financial and regulatory, IT applications operations, and IT infrastructure management.									
Alternatives	Prior to implementing an enhancement, a review is completed to identify the best solution. During that review, requests for this funding are governed by a cross-functional board comprised of representatives from each area that routinely evaluates and prioritizes the work and to assess requests for value using categorized benefits. In addition, the overall enhancements budget is reviewed annually, and the alternative of a zero-budget allocation for enhancements is considered. This project fortifies the Company's ability to make software changes as part of process improvements and regulatory changes, and to meet legally required system changes. Without funding for enhancements, the Company will be limited in its ability to quickly provide needed capabilities and improvements.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution			
	In-Service/Go-Live			Closeout						
FUNDING SUMMARY										
		2024	2025	2026	2027	2028	2029	2030	2031 +	Total
Cap+COR		\$0.702	\$1.094	\$0.573	\$0.573	\$0.573	\$0.573	-	-	\$4.090
O&M		\$0.350	\$0.149	\$0.184	\$0.184	\$0.184	\$0.184	-	-	\$1.233
Total Cost of Ownership		\$1.052	\$1.243	\$0.757	\$0.757	\$0.757	\$0.757	-	-	\$5.323
		2024	2025	2026	2027	2028	2029	2030	2031 +	Total
Labor		\$0.610	\$0.762	\$0.467	\$0.467	\$0.467	\$0.467	-	-	\$3.241
Outside Services		\$0.095	\$0.094	\$0.094	\$0.094	\$0.094	\$0.094	-	-	\$0.566
Business Expense/Overheads		\$0.347	\$0.387	\$0.195	\$0.195	\$0.195	\$0.195	-	-	\$1.516
Employee Benefits		-	-	-	-	-	-	-	-	-
Materials		-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees		-	-	-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)		\$1.052	\$1.243	\$0.757	\$0.757	\$0.757	\$0.757	-	-	\$5.323
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS										
		2024	2025	2026	2027	2028	2029	2030	2031 +	Total
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.350	\$0.149	\$0.184	\$0.184	\$0.184	\$0.184	-	-	\$1.233
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.350	\$0.149	\$0.184	\$0.184	\$0.184	\$0.184	-	-	\$1.233
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.702	\$1.094	\$0.573	\$0.573	\$0.573	\$0.573	-	-	\$4.090
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.702	\$1.094	\$0.573	\$0.573	\$0.573	\$0.573	-	-	\$4.090
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000								
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									
Technology Capability	Administrative & General (A&G) Support									
Intangibles	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.									

Product Family Enhancements-Infrastructure Platforms Serv Report Pulled: 11/1/2024										Item ID: 13934
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Strategic/Grow					Work Type	Project			
Alias	, Product Family Enhancements-IT/Digital Foundation-O&M, Product Family Enhancements-Application Platforms and Services-O&M, Product Family Enhancements-Infrastructure Platforms and Services-O&M, Product Family Enhancements-Infrastructure Platforms Services-O&M									
Description	The IT initiative will utilize O&M funding to make enhancements to existing software and to address requests generated by changing business requirements.									
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *									
Org	CX&T			Bus Unit	INFORMATION TECHNOLOGY		Dept	CX&T-IT-INFRASTRUCTURE PLATFORMS &		
WORK OBJECTIVES										
Problem Statement	As business processes improve and change, new requirements surface that call for smaller-effort software application changes that typically emerge from new or changing business conditions, compliance requirements, needs for new capabilities, customer feedback, and other improvement ideas. Enhancing applications requires a short timeframe between inception and implementation and cannot and should not wait for rate case approval at an individual line-item level. Failure to make these changes to applications can have a direct negative impact on key customer and business processes, increase support costs, and limit the Company's ability to consistently meet objectives.									
Objectives	The value of software enhancements that benefit the IT organization lies in: (1) cost savings and cost avoidance; (2) technology and business process efficiencies; (3) improved customer experience; (4) risk mitigation; (5) safety improvements; and (6) achieving corporate goals, among others. While these small-work software efforts are neither projects nor operational work, funding for resources is still required to maintain business agility in the digital environment.									
Scope	Included in the implementation are small changes and functionality improvements to existing IT software application investments that are utilized by IT employees in support of tracking hardware and software fixes and managing technology projects for the various business areas within the Company. The scope of application enhancements encompasses: (1) making necessary system changes, and (2) updating documentation related to the changes. Additionally, enhancement requests are fulfilled to provide functionality for areas such as IT resource management, IT project management, IT financial and regulatory, IT applications operations, and IT infrastructure management.									
Alternatives	Prior to implementing an enhancement, a review is completed to identify the best solution. During that review, requests for this funding are governed by a cross-functional board comprised of representatives from each area that routinely evaluates and prioritizes the work and to assess requests for value using categorized benefits. In addition, the overall enhancements budget is reviewed annually, and the alternative of a zero-budget allocation for enhancements is considered. This project fortifies the Company's ability to make software changes as part of process improvements and regulatory changes, and to meet legally required system changes. Without funding for enhancements, the Company will be limited in its ability to quickly provide needed capabilities and improvements.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution			
	In-Service/Go-Live			Closeout						
FUNDING SUMMARY										
	2024	2025	2026	2027	2028	2029	2030	2031 +	Total	
Cap+COR	-	-	-	-	-	-	-	-	-	
O&M	\$0.331	\$0.143	\$0.332	\$0.216	\$0.216	\$0.216	-	-	\$1.454	
Total Cost of Ownership	\$0.331	\$0.143	\$0.332	\$0.216	\$0.216	\$0.216	-	-	\$1.454	
	2024	2025	2026	2027	2028	2029	2030	2031 +	Total	
Labor	\$0.309	\$0.122	\$0.310	\$0.202	\$0.202	\$0.202	-	-	\$1.346	
Outside Services	-	-	-	-	-	-	-	-	-	
Business Expense/Overheads	\$0.022	\$0.022	\$0.022	\$0.014	\$0.014	\$0.014	-	-	\$0.107	
Employee Benefits	-	-	-	-	-	-	-	-	-	
Materials	-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost (Annual)	\$0.331	\$0.143	\$0.332	\$0.216	\$0.216	\$0.216	-	-	\$1.454	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS										
	2024	2025	2026	2027	2028	2029	2030	2031 +	Total	
O&M										
Reduction	-	-	-	-	-	-	-	-	-	
Initial	\$0.331	\$0.143	\$0.332	\$0.216	\$0.216	\$0.216	-	-	\$1.454	
Incremental	-	-	-	-	-	-	-	-	-	
Net	\$0.331	\$0.143	\$0.332	\$0.216	\$0.216	\$0.216	-	-	\$1.454	
Cap+COR										
Reduction	-	-	-	-	-	-	-	-	-	
Initial	-	-	-	-	-	-	-	-	-	
Incremental	-	-	-	-	-	-	-	-	-	
Net	-	-	-	-	-	-	-	-	-	
Revenue										
Reduction	-	-	-	-	-	-	-	-	-	
Initial	-	-	-	-	-	-	-	-	-	
Incremental	-	-	-	-	-	-	-	-	-	
Net	-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)			-1.000							
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									
Technology Capability	Administrative & General (A&G) Support									
Intangibles	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.									

Product Family Enhancements-IT/Digital Foundation-Capital Report Pulled: 11/1/2024										Item ID: 13382
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Strategic/Grow						Work Type	Project		
Alias	, Product Family Enhancements-IT/Digital Foundation-Capital									
Description	The IT initiative will utilize both Capital and O&M funding to make enhancements to existing software and to address requests generated by changing business requirements. O&M is included in this project to complete expense activities associated with Capital enhancements.									
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *									
Org	CX&T			Bus Unit	INFORMATION TECHNOLOGY			Dept	CX&T-IT-INFRASTRUCTURE PLATFORMS &	
WORK OBJECTIVES										
Problem Statement	As business processes improve and change, new requirements surface that call for smaller-effort software application changes that typically emerge from new or changing business conditions, compliance requirements, needs for new capabilities, customer feedback, and other improvement ideas. Enhancing applications requires a short timeframe between inception and implementation and cannot and should not wait for rate case approval at an individual line-item level. Failure to make these changes to applications can have a direct negative impact on key customer and business processes, increase support costs, and limit the Company's ability to consistently meet objectives.									
Objectives	The value of software enhancements that benefit the IT organization lies in: (1) cost savings and cost avoidance; (2) technology and business process efficiencies; (3) improved customer experience; (4) risk mitigation; (5) safety improvements; and (6) achieving corporate goals, among others. While these small-work software efforts are neither projects nor operational work, funding for resources is still required to maintain business agility in the digital environment.									
Scope	Included in the implementation are small changes and functionality improvements to existing IT software application investments that are utilized by IT employees in support of tracking hardware and software fixes and managing technology projects for the various business areas within the Company. The scope of application enhancements encompasses: (1) making necessary system changes, and (2) updating documentation related to the changes. Additionally, enhancement requests are fulfilled to provide functionality for areas such as IT resource management, IT project management, IT financial and regulatory, IT applications operations, and IT infrastructure management.									
Alternatives	Prior to implementing an enhancement, a review is completed to identify the best solution. During that review, requests for this funding are governed by a cross-functional board comprised of representatives from each area that routinely evaluates and prioritizes the work and to assess requests for value using categorized benefits. In addition, the overall enhancements budget is reviewed annually, and the alternative of a zero-budget allocation for enhancements is considered. This project fortifies the Company's ability to make software changes as part of process improvements and regulatory changes, and to meet legally required system changes. Without funding for enhancements, the Company will be limited in its ability to quickly provide needed capabilities and improvements.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition			Final Engineering, Planning & Design				Execution		
	In-Service/Go-Live			Closeout						
FUNDING SUMMARY										
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR		\$0.268	\$1.034	-	-	-	-	-	-	\$1.302
O&M		\$0.048	\$0.274	-	-	-	-	-	-	\$0.322
Total Cost of Ownership		\$0.316	\$1.308	-	-	-	-	-	-	\$1.624
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor		\$0.105	\$1.107	-	-	-	-	-	-	\$1.212
Outside Services		\$0.056	\$0.130	-	-	-	-	-	-	\$0.186
Business Expense/Overheads		\$0.025	\$0.059	-	-	-	-	-	-	\$0.084
Employee Benefits		-	-	-	-	-	-	-	-	-
Materials		\$0.099	\$0.003	-	-	-	-	-	-	\$0.102
Licenses, Permits & Fees		\$0.031	\$0.009	-	-	-	-	-	-	\$0.040
Other		-	-	-	-	-	-	-	-	-
Total Project Cost (Annual)		\$0.316	\$1.308	-	-	-	-	-	-	\$1.624
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS										
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.048	\$0.274	-	-	-	-	-	-	\$0.322
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.048	\$0.274	-	-	-	-	-	-	\$0.322
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.268	\$1.034	-	-	-	-	-	-	\$1.302
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.268	\$1.034	-	-	-	-	-	-	\$1.302
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000								
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									
Technology Capability	Administrative & General (A&G) Support									
Intangibles	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.									

Product Family Enhancements-IT/Digital Foundation-O&M Report Pulled: 11/1/2024										Item ID: 13383
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Strategic/Grow						Work Type	Project		
Alias	, Product Family Enhancements-IT/Digital Foundation-O&M									
Description	The IT initiative will utilize O&M funding to make enhancements to existing software and to address requests generated by changing business requirements.									
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *									
Org	CX&T			Bus Unit	INFORMATION TECHNOLOGY			Dept	CX&T-IT-INFRASTRUCTURE PLATFORMS &	
WORK OBJECTIVES										
Problem Statement	As business processes improve and change, new requirements surface that call for smaller-effort software application changes that typically emerge from new or changing business conditions, compliance requirements, needs for new capabilities, customer feedback, and other improvement ideas. Enhancing applications requires a short timeframe between inception and implementation and cannot and should not wait for rate case approval at an individual line-item level. Failure to make these changes to applications can have a direct negative impact on key customer and business processes, increase support costs, and limit the Company's ability to consistently meet objectives.									
Objectives	The value of software enhancements that benefit the IT organization lies in: (1) cost savings and cost avoidance; (2) technology and business process efficiencies; (3) improved customer experience; (4) risk mitigation; (5) safety improvements; and (6) achieving corporate goals, among others. While these small-work software efforts are neither projects nor operational work, funding for resources is still required to maintain business agility in the digital environment.									
Scope	Included in the implementation are small changes and functionality improvements to existing IT software application investments that are utilized by IT employees in support of tracking hardware and software fixes and managing technology projects for the various business areas within the Company. The scope of application enhancements encompasses: (1) making necessary system changes, and (2) updating documentation related to the changes. Additionally, enhancement requests are fulfilled to provide functionality for areas such as IT resource management, IT project management, IT financial and regulatory, IT applications operations, and IT infrastructure management.									
Alternatives	Prior to implementing an enhancement, a review is completed to identify the best solution. During that review, requests for this funding are governed by a cross-functional board comprised of representatives from each area that routinely evaluates and prioritizes the work and to assess requests for value using categorized benefits. In addition, the overall enhancements budget is reviewed annually, and the alternative of a zero-budget allocation for enhancements is considered. This project fortifies the Company's ability to make software changes as part of process improvements and regulatory changes, and to meet legally required system changes. Without funding for enhancements, the Company will be limited in its ability to quickly provide needed capabilities and improvements.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition			Final Engineering, Planning & Design				Execution		
	In-Service/Go-Live			Closeout						
FUNDING SUMMARY										
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Cap+COR	-	-	-	-	-	-	-	-	-	-
O&M	\$0.040	\$0.357	-	-	-	-	-	-	\$0.396	
Total Cost of Ownership	\$0.040	\$0.357	-	-	-	-	-	-	\$0.396	
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Labor	\$0.015	\$0.299	-	-	-	-	-	-	\$0.314	
Outside Services	\$0.022	\$0.054	-	-	-	-	-	-	\$0.077	
Business Expense/Overheads	\$0.003	\$0.003	-	-	-	-	-	-	\$0.006	
Employee Benefits	-	-	-	-	-	-	-	-	-	
Materials	-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost (Annual)	\$0.040	\$0.357	-	-	-	-	-	-	\$0.396	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS										
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
O&M										
Reduction	-	-	-	-	-	-	-	-	-	
Initial	\$0.040	\$0.357	-	-	-	-	-	-	\$0.396	
Incremental	-	-	-	-	-	-	-	-	-	
Net	\$0.040	\$0.357	-	-	-	-	-	-	\$0.396	
Cap+COR										
Reduction	-	-	-	-	-	-	-	-	-	
Initial	-	-	-	-	-	-	-	-	-	
Incremental	-	-	-	-	-	-	-	-	-	
Net	-	-	-	-	-	-	-	-	-	
Revenue										
Reduction	-	-	-	-	-	-	-	-	-	
Initial	-	-	-	-	-	-	-	-	-	
Incremental	-	-	-	-	-	-	-	-	-	
Net	-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)			-1.000							
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									
Technology Capability	Administrative & General (A&G) Support									
Intangibles	Maintaining an optimal degree of application currency helps the Company to avoid: (1) application failure, (2) an increased number of incidents, (3) paying increased support costs, and (4) disruption of employee work completion. The benefit of implementing the enhancements will be reviewed and agreed upon by the cross organization governance board.									

Public Key Infrastructure (PKI) Upgrade				Report Pulled: 11/1/2024				Item ID: 13691											
EXECUTIVE SUMMARY																			
BASIC INFORMATION																			
Work Category		Maintain - Condition						Work Type		Project									
Alias		, Public Key Infrastructure (PKI) Upgrade																	
Description		Replace on-premise PKI to stay supported by the manufacturer.																	
Portfolio		IT Services > Infrastructure > Data Center - Enterprise Computing > * > * > *																	
Org		CX&T				Bus Unit SECURITY		Dept		CX&T-SECURITY-CYBER SEC ENG & STANJ									
WORK OBJECTIVES																			
Problem Statement		The existing PKI that issues certificates to IT systems for secure communications needs to be upgraded to stay supported by the manufacturer. If the PKI is not maintained, in the event of a system failure the Company would not have support in recovering. All IT systems requiring secure communications via certificates would go offline within three days.																	
Objectives		Replace existing PKI with new PKI that is supported by the manufacturer.																	
Scope		The project will build and configure the servers necessary to provide Public Key Infrastructure services, put in place physical token management for maintaining security, migrate certificate issuing and management to the new system and decommission the old system.																	
Alternatives		The Company has a limited use service for PKI on the Internet only. (1) The Company looked into expanding the service to include usage on the Company network but found the solution to not be economically viable. (2) The Company also looked at full cloud solutions, but it did not meet the security standards currently being used around physical token use. (3) The Company looked at continuing extended support, however the continuing extended support is not available by the vendor. (4) The Company selected a hybrid solution of part cloud and part on-premise to meet all operational and security compliance requirements. The opportunity is to retain ownership of the keys on-premise prior to evaluating ownership through the cloud.																	
DATES (phase end)																			
Initiation 10/9/2023		Project Plan & Scope Definition 10/23/2023 In-Service/Go-Live 7/1/2024				Final Engineering, Planning & Design 12/4/2023 Closeout 7/12/2024			Execution 12/15/2023										
FUNDING SUMMARY																			
Cap+COR		2023		2024		2025		2026		2027		2028		2029		2030 +		Total	
O&M		\$0.305		\$1.513		-		-		-		-		-		-		\$1.818	
		\$0.162		\$0.262		-		-		-		-		-		-		\$0.424	
Total Cost of Ownership		\$0.467		\$1.775		-		-		-		-		-		-		\$2.242	
Labor		2023		2024		2025		2026		2027		2028		2029		2030 +		Total	
Outside Services		\$0.011		\$0.418		-		-		-		-		-		-		\$0.429	
Business Expense/Overheads		\$0.085		\$0.549		-		-		-		-		-		-		\$0.633	
Employee Benefits		\$0.034		\$0.050		-		-		-		-		-		-		\$0.085	
Materials		-		-		-		-		-		-		-		-		-	
Licenses, Permits & Fees		\$0.132		\$0.649		-		-		-		-		-		-		\$0.781	
Other		\$0.205		\$0.108		-		-		-		-		-		-		\$0.314	
		-		-		-		-		-		-		-		-		-	
Total Project Cost		\$0.467		\$1.775		-		-		-		-		-		-		\$2.242	
VALUE & IMPACTS SUMMARY																			
FINANCIAL IMPACTS		2023		2024		2025		2026		2027		2028		2029		2030 +		Total	
O&M		Reduction		-		-		-		-		-		-		-		-	
		Initial		\$0.162		\$0.262		-		-		-		-		-		\$0.424	
		Incremental		-		-		-		-		-		-		-		-	
		Net		\$0.162		\$0.262		-		-		-		-		-		\$0.424	
Cap+COR		Reduction		-		-		-		-		-		-		-		-	
		Initial		\$0.305		\$1.513		-		-		-		-		-		\$1.818	
		Incremental		-		-		-		-		-		-		-		-	
		Net		\$0.305		\$1.513		-		-		-		-		-		\$1.818	
Revenue		Reduction		-		-		-		-		-		-		-		-	
		Initial		-		-		-		-		-		-		-		-	
		Incremental		-		-		-		-		-		-		-		-	
		Net		-		-		-		-		-		-		-		-	
B/C Ratio (Overall)												-1.000							
Risk Tolerance																			
Corporate Risk		Impact		Likelihood		Description													
System Failure (SAP & Other)		High		Medium		Consumers Energy's vendor, Thales only offers full support for seven years after purchase of a solution. After the end of support no more operational or security patches are available and if an issue is encountered the manufacturer will not assist in resolving.													
OTHER VALUE																			
Type		Description																	
Risk Mitigation		DR Risks/Impacts Description – If the Company doesn't upgrade to a supported version and the system becomes unrecoverable, we are at risk of the of the following: (1) Lost productivity of approximately 8,000 employees and 4,000 contractors who are unable to access system is estimated to be 3.12M (Half day – 13,000 *\$60 *4 hours) to 12.48M (2 days – 13,000 people * \$60 * 16 hours). (2) Deferred revenue – payment from customers estimated to be \$12-44M daily. (3) Life Safety Incidents – loss of ability to report a down powerline, gas leak type events. (4) Negatively impacts our ability to assist with Storm Restoration. (5) Call centers will go down.																	
Risk Mitigation		The Company's research demonstrates that industry standards on refreshing hardware are generally three to five years. Using these recommendations allows the Company to: (1) Avoid increasing costs as the result of hardware failures; (2) avert customer frustration and employee downtime; (3) reduce security risks by ensuring that devices are updated and patched to prevent vulnerabilities; (4) continue operating system support as older versions are retired by the manufacturer; and (5) ensure employees have the required software to perform their work.																	

Radar Intrusion Detection

Ransomware Recovery		Report Pulled: 11/1/2024		Item ID: 11713					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	<u>Strategic/Grow</u>			Work Type	<u>Project</u>				
Alias	<u>, Ransomware Recovery</u>								
Description	This project will implement a multi-layered security approach to our production OT data center backups to mitigate data loss risk from a ransomware attack for both IT and OT.								
Portfolio	<u>IT Services > Infrastructure > Data Center - Storage > * > * > *</u>								
Org	<u>CX&T</u>	Bus Unit	<u>INFORMATION TECHNOLOGY</u>	Dept	<u>CX&T-IT-WORK MANAGEMENT</u>				
WORK OBJECTIVES									
Problem Statement	The company is at risk from ransomware attacks. A severe ransomware attack could leave the Company without access to critical data and unable to recover the data. In a best case scenario, a successful ransomware attack would likely result in primary systems outages for up to a week and months of work to recover remaining systems.								
Objectives	The project will add value to the Company and its customers by: (1) implementing a 3-2-1-1 (3 copies, 2 media, 1 offline, 1 immutable) strategy to protect the production data center data and backups. This strategy will protect the Company from production data center data loss from a broader scope of cyber threats including ransomware. (2) Providing various restoration options to reduce data loss and improve recovery time. (3) Mitigating the risk of complete data loss with a maximum security backup to store a weekly copy of production data center data offline and in a format that cannot be changed. (4) Defining a ransomware response plan that the Company can use to respond to a wide array of cyber attacks with a practiced process. (5) Providing the ability for OT to sever all communications to the public internet and corporate IT networks.								
Scope	The scope of this project is to deliver one day of hardware storage level snapshots, local immutable copies of production and OT data center data, public cloud third copy of 100% of production data center data, and a ransomware recovery plan with a scenario-based approach to ransomware response including plans for monitoring, containment, malware clean up and recovery.								
Alternatives	The project team looked at a number of alternatives to provide a ransomware recovery plan including paying the ransom, using tape backup, restoring to the public cloud, and buying a third datacenter. The project team looked closely at tape backups but with Company's heavy investment in their current solution for backups and the ability of the current solution to provide immutable copies the team felt that the current solution immutability better met the requirements and at a lower cost and faster delivery. Restoration to the public cloud was considered but delivery would have been extremely complex and likely would have taken 3-5 years to get in place. Lastly the project team looked at setting up a third data center that would be used as an offline copy of production. The cost was too high and it didn't provide any value over our current public cloud and on-premise backup copies of production and OT data center data.								
DATES (phase end)									
Initiation 1/4/2021	Project Plan & Scope Definition 1/15/2021 In-Service/Go-Live 5/26/2023		Final Engineering, Planning & Design 2/12/2021 Closout 5/30/2023		Execution 2/22/2021				
FUNDING SUMMARY									
	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028 +</u>	<u>Total</u>
Cap+COR	\$1,116	\$0,377	\$0,003	-	-	-	-	-	\$1,496
O&M	\$0,149	\$0,208	\$0,001	-	-	-	-	-	\$0,358
Total Cost of Ownership	\$1,265	\$0,585	\$0,004	-	-	-	-	-	\$1,854
	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028 +</u>	<u>Total</u>
Labor	\$0,300	\$0,170	\$0,003	-	-	-	-	-	\$0,473
Outside Services	\$0,016	\$0,148	-	-	-	-	-	-	\$0,164
Business Expense/Overheads	\$0,105	\$0,043	\$0,001	-	-	-	-	-	\$0,150
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	\$0,390	\$0,120	-	-	-	-	-	-	\$0,510
Licenses, Permits & Fees	\$0,454	\$0,104	-	-	-	-	-	-	\$0,558
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	\$1,265	\$0,585	\$0,004	-	-	-	-	-	\$1,854
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028 +</u>	<u>Total</u>
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0,149	\$0,208	\$0,001	-	-	-	-	-	\$0,358
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0,149	\$0,208	\$0,001	-	-	-	-	-	\$0,358
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$1,116	\$0,377	\$0,003	-	-	-	-	-	\$1,496
Incremental	-	-	-	-	-	-	-	-	-
Net	\$1,116	\$0,377	\$0,003	-	-	-	-	-	\$1,496
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-1.000						
Risk Tolerance									
<u>Corporate Risk</u>	<u>Impact</u>	<u>Likelihood</u>	<u>Description</u>						
Loss of Data Center - Parnall	High	Low	This should be tied to the Data Loss Corporate Risk. This project reduces the risk by ensuring we have a secure version of production data in the event of ransomware attack.						
System Failure (SAP & Other)	Low	Low	Without the full project implementation, maintenance may need to be renewed for up to \$1.2M on equipment that is not currently planned in the ITPM.						
OTHER VALUE									
<u>Type</u>	<u>Description</u>								
Technology Capability	Ransomware Recovery systems								

Rate Change Maintenance		Report Pulled: 11/1/2024		Item ID: 13957						
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Comply - Interval			Work Type	Project					
Alias	Rates Case Implementation, Rate Cases Annual Upgrade Implementation, Rate Cases Annual Upgrade, Rate Case Annual Upgrade, Rate Case Annual Requirements, Rate Case Maintenance, Rate Change Maintenance									
Description	The Rates Change Maintenance project will modify SAP billing in accordance with pricing and rate change requirements.									
Portfolio	IT Services > Applications > Customer Services > * > * > *									
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-CUSTOMER EXP & OPS					
WORK OBJECTIVES										
Problem Statement	For the Company to continue to meet and comply with the Michigan Public Service Commission (MPSC) rate change requirements, there is a need to make periodic updates/modifications to the existing prices and rate structures. These updates help ensure accuracy of billing and provide optimal rates for customers.									
Objectives	The project will add value for both the Company and its customers through: (1) improved customer satisfaction by providing accurate billing; (2) optimized rate configuration enabling rate changes to be made more efficiently; and (3) timely updates to Company applications that incorporate mandatory changes to the rate structure that includes new surcharges, price changes, and energy efficiency programs.									
Scope	The scope of this project encompasses (1) implementation of annual or monthly (or both) electric and gas customer price changes, and rate structure changes as approved by the MSPC; and (2) optimizing the rate configuration in the Company's back-end system for more efficient rate changes.									
Alternatives	An alternative considered for this effort was a fully dedicated offshore development model. The option ensured resources were readily available with a more cost-effective labor expense. This alternative was not chosen due to the risk of billing inaccuracies and customer complaints. These risks were deemed too high because of the complexities of the rate structure, new development, and the timing it would take for testing of this model. Cloud is not an applicable option in this case as we are not replacing any software. The option to use onshore resources to plan, coordinate, and execute the rate changes was selected as it supports the Company's operation model for rate changes.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution					
	In-Service/Go-Live		Closeout							
FUNDING SUMMARY										
	2024	2025	2026	2027	2028	2029	2030	2031 +	Total	
Cap+COR	-	-	-	-	-	-	-	-	-	
O&M	\$0.279	\$0.318	\$0.318	\$0.318	\$0.318	\$0.318	-	-	\$1.870	
Total Cost of Ownership	\$0.279	\$0.318	\$0.318	\$0.318	\$0.318	\$0.318	-	-	\$1.870	
	2024	2025	2026	2027	2028	2029	2030	2031 +	Total	
Labor	\$0.002	\$0.297	\$0.297	\$0.297	\$0.297	\$0.297	-	-	\$1.488	
Outside Services	\$0.271	-	-	-	-	-	-	-	\$0.271	
Business Expense/Overheads	\$0.006	\$0.021	\$0.021	\$0.021	\$0.021	\$0.021	-	-	\$0.110	
Employee Benefits	-	-	-	-	-	-	-	-	-	
Materials	-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost (Annual)	\$0.279	\$0.318	\$0.318	\$0.318	\$0.318	\$0.318	-	-	\$1.870	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS		2024	2025	2026	2027	2028	2029	2030	2031 +	Total
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.279	\$0.318	\$0.318	\$0.318	\$0.318	\$0.318	-	-	\$1.870
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.279	\$0.318	\$0.318	\$0.318	\$0.318	\$0.318	-	-	\$1.870
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000								
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									
Risk Mitigation	Completing timely rate changes reduces the risk of increasing noncollectable revenue due to delays with rate implementation. The Company could risk millions of dollars if rate changes are delayed; establishing an optimized process for rate changes is crucial to mitigate this risk.									
Technology Capability	Customer Management									
Avoided Costs	Following the Rate Optimization implementation the team responsible for rate changes can streamline their efforts; preventing waste in the form of waiting and rework. Multiple changes can be completed at once versus sequencing them which causes rework when priorities shift.									
Risk Mitigation	Maintain compliance by fulfilling MPSC rates requirements, ensuring customer bills remain accurate as the Company implements various rate changes. This will help the Company provide the best rates for customers as they're identified.									

Replacement for Gas Automated Meter Reading (AMR) Tech Report Pulled: 11/1/2024										Item ID: 13960	
EXECUTIVE SUMMARY											
BASIC INFORMATION											
Work Category	Maintain - Condition					Work Type					Project
Alias	, Field Collection Systems (FCS) and Itron Mobile Replacement, Replacement for Gas Meter Reading Technology, Replacement for Gas Automated Meter Reading (AMR) Technology										
Description	This project will replace Itron Field Collection Systems (FCS) and Itron Mobile with the newest Itron Software as a Service (SaaS) Temetra along with replacing Itron Mobile with Temetra Mobile for Gas AMR meters. This will allow the Company to leverage new cloud capabilities and align with the Company's Cloud strategy.										
Portfolio	IT Services > Applications > Gas Delivery Systems > * > * > *										
Org	CX&T		Bus Unit			INFORMATION TECHNOLOGY		Dept		CX&T-IT-ELECTRIC	
WORK OBJECTIVES											
Problem Statement	The Company is using FCS and FCS mobile to gather gas meter reads. The vendor is replacing these systems with new Cloud software called Temetra and Temetra Mobile due to FCS and Itron Mobile being end of life December 2026. The software migration is necessary to maintain vendor support (latest security patches, bug fixes, latest functionality) while avoiding security, stability, and reliability risks for the Company. Moving to Itron Temetra will ensure no gas meter reading disruption and continued integration with existing gas communication modules and Itron Security Manager.										
Objectives	The project adds value by: (1) continuing to collect accurate and timely gas meter reads; (2) removing the risk of being on unsupported versions; (3) utilizing the latest functionality such as retrieving historic read data, photos and reports directly from Temetra; (4) seamlessly getting up to date security patches; (5) and reducing ongoing networking equipment replacement and upgrade costs.										
Scope	Included in the implementation is: (1) configuring and deploying Temetra and Temetra Mobile; (2) migrating data; (3) integrating to Itron Enterprise Edition (IEE), Itron Security Manager (ISM), gas AMR PI Historian and Data Lake; (4) integrating to Mobile Collectors (MC3s); (5) testing the software, data migrations and integrations; (6) educating and increasing the skills of the employees to leverage the new cloud services; (7) and decommissioning FCS and Itron Mobile and the on-premise databases and servers.										
Alternatives	Alternatives considered included: (1) continuing to use the FCS application and Itron Mobile without vendor support. This alternative was not selected because it would add application stability, security, and dependency risks to gas meter reading data collection which would negatively impact critical customer billing operations. It would also de-couple from the Itron security infrastructure that the other business critical Itron applications use, creating more expense and complexity in the technology environment. (2) Replace the platform with a different mobile gas reading application, which would also require the Company to replace the 1.2 million gas communication modules on the meters. Replacing FCS would require the application business owners to undertake a large initiative requiring multiple years to implement and a multi-team effort from start to finish. It would also increase the amount of technology needed to be supported and add cost to support as it would be a standalone product. (3) Move to Itron's Cloud technology (Temetra and Temetra Mobile). This option best suits customers and the Company's needs for the future as it offers new functionality while maintaining the system integrated into the Itron Security infrastructure and with the other Itron software products in use at the Company.										
DATES (phase end)											
Initiation	Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution				
1/12/2026	1/26/2026			2/26/2026			7/30/2026				
	In-Service/Go-Live			Closeout							
	9/24/2026			10/15/2026							
FUNDING SUMMARY											
		2026	2027	2028	2029	2030	2031	2032	2033 +	Total	
Cap+COR		\$1.028	-	-	-	-	-	-	-	\$1.028	
O&M		\$0.277	-	-	-	-	-	-	-	\$0.277	
Total Cost of Ownership		\$1.304	-	-	-	-	-	-	-	\$1.304	
		2026	2027	2028	2029	2030	2031	2032	2033 +	Total	
Labor		\$0.209	-	-	-	-	-	-	-	\$0.209	
Outside Services		\$0.063	-	-	-	-	-	-	-	\$0.063	
Business Expense/Overheads		\$0.065	-	-	-	-	-	-	-	\$0.065	
Employee Benefits		-	-	-	-	-	-	-	-	-	
Materials		-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees		\$0.803	-	-	-	-	-	-	-	\$0.803	
Other		-	-	-	-	-	-	-	-	-	
Total Project Cost		\$1.140	-	-	-	-	-	-	-	\$1.140	
VALUE & IMPACTS SUMMARY											
FINANCIAL IMPACTS											
		2026	2027	2028	2029	2030	2031	2032	2033 +	Total	
O&M	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	\$0.277	-	-	-	-	-	-	-	\$0.277	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	\$0.277	-	-	-	-	-	-	-	\$0.277	
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	\$1.028	-	-	-	-	-	-	-	\$1.028	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	\$1.028	-	-	-	-	-	-	-	\$1.028	
Revenue	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	-	-	-	-	-	-	-	-	-	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)		-1.000									
Risk Tolerance											
Corporate Risk	Impact	Likelihood	Description								
OTHER VALUE											
Type	Description										
Technology Capability	Gas T&D										
Intangibles	Latest software of Temetra enables the best integration with other Itron products, such as future versions of Itron Security Manager. Failure to stay current, will impact the upgradability of the entire Itron software suite as well as gas meters from gas-only customers.										
Intangibles	The Company has adopted a cloud-first policy. The move from FCS to Temetra will align with that policy.										
Intangibles	This project will assist in improving performance of the platform through bug fixes and performance tuning and latest enhancements. Ensuring the Company is on the latest platform will enhance usability while also guaranteeing it is running the most secure configuration.										
Risk Mitigation	To mitigate the risks of software reaching end-of-life, we need to transition to this new, supported solution. Temetra and Temetra mobile are essential to ensure vendor support with the latest security patches, bug fixes and latest functionality.										
Avoided Costs	With applications in the cloud, the Company can reduce it's purchasing of on-premise servers and on-premise software										

SAP Data Archiving		Report Pulled: 11/1/2024		Item ID: 6831						
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Maintain - Interval			Work Type	Project					
Alias	SAP Archiving,SAP Data Archiving									
Description	This project will move outdated data from an online database to offline storage.									
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *									
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-APPLICATION PLATFORMS & SER					
WORK OBJECTIVES										
Problem Statement	The SAP Enterprise Resource Planning Central Component database is 37 terabytes in size and growing at a rate of 0.3 terabytes to 0.5 terabytes per month. If the database is not archived, then SAP system performance will degrade, and this will affect customers and employees who are completing tasks within the system.									
Objectives	This project will create value for the Company by: (1) increasing system stability by controlling online data storage levels; and (2) controlling maintenance costs associated with data storage. Annual data storage costs are \$7,445 per terabyte only including the primary production system. Data back-up costs are \$400 per terabyte per week for full back-ups.									
Scope	The project scope includes: (1) archiving data based on the fastest growing and largest archiving objects in SAP (an archiving object defines the structure and context of the data in the SAP database from an archiving perspective); (2) building and archiving solutions that allow retrieval of archived data in the required form; and (3) setting up a solution that meets compliance standards.									
Alternatives	Three alternatives were explored and determined non-viable for the project: (1) allow the database to continue to grow, which puts system performance at risk and results in prohibitive storage costs; (2) decrease the overall scope and archive fewer objects, which would result in minimal positive impact to system growth and significant storage-related costs; and (3) increase the scope and archive more objects in a shorter timeframe, which would result in a significant cost increase over shorter time period. After considering each of these options, it was determined that the current scope of the project was the best strategy to address the problem while balancing annual spending.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution					
2/1/2025	4/1/2025		6/1/2025		7/1/2025					
	In-Service/Go-Live		Closeout							
	10/15/2025		10/31/2025							
FUNDING SUMMARY										
	2019	2020	2021	2022	2023	2024	2025	2026 +	Total	
Cap+COR	\$0.106	\$(0.028)	\$(0.004)	\$0.657	\$0.021	-	-	-	\$0.752	
O&M	\$0.031	\$0.176	\$0.031	\$0.462	\$0.002	-	-	-	\$0.702	
Total Cost of Ownership	\$0.137	\$0.148	\$0.027	\$1.119	\$0.023	-	-	-	\$1.454	
	2019	2020	2021	2022	2023	2024	2025	2026 +	Total	
Labor	\$0.137	\$0.146	\$0.028	\$0.080	-	-	-	-	\$0.391	
Outside Services	-	-	-	\$0.951	\$0.004	-	-	-	\$0.955	
Business Expense/Overheads	-	\$0.002	\$(0.001)	\$0.088	\$0.019	-	-	-	\$0.108	
Employee Benefits	-	-	-	-	-	-	-	-	-	
Materials	-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost	\$0.137	\$0.148	\$0.027	\$1.119	\$0.023	-	-	-	\$1.454	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS		2019	2020	2021	2022	2023	2024	2025	2026 +	Total
O&M	Reduction									
	Initial	\$0.031	\$0.176	\$0.031	\$0.462	\$0.002	-	-	-	\$0.702
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.031	\$0.176	\$0.031	\$0.462	\$0.002	-	-	-	\$0.702
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.106	\$(0.028)	\$(0.004)	\$0.657	\$0.021	-	-	-	\$0.752
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.106	\$(0.028)	\$(0.004)	\$0.657	\$0.021	-	-	-	\$0.752
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000								
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
System Failure (SAP & Other)	High	Medium	If the SAP database is not archived, the system performance will degrade over time, negatively impacting customer experience and preventing employees from completing transactions within acceptable performance thresholds. Additionally, at current growth rate, the Enterprise Central Component (ECC) database could potentially run out of storage space.							
OTHER VALUE										
Type	Description									
Technology Capability	Administrative & General (A&G) Support									
Intangibles	Maintain the data growth rate for SAP ECC (Enterprise Central Component) under 0.4 terabytes per month.									
Risk Mitigation	Through data archiving, the size of the SAP ECC (Enterprise Central Component) database is kept in check allowing SAP to perform at an optimal level.									

SAP HANA Database Migration				Report Pulled: 11/1/2024				Item ID: 11774			
EXECUTIVE SUMMARY											
BASIC INFORMATION											
Work Category		Maintain - Interval						Work Type		Project	
Alias		, SAP HANA Database Migration									
Description		In preparation for SAP's planned end of support for its Business Suite product in 2027, the Company will migrate its existing SAP databases from Oracle to SAP HANA in advance of the required move to S/4HANA.									
Portfolio		IT Services > Applications > Common Delivery Systems > * > * > *									
Org		CX&T			Bus Unit INFORMATION TECHNOLOGY			Dept		CX&T-IT-APPLICATION PLATFORMS & SER	
WORK OBJECTIVES											
Problem Statement		The Company's SAP applications currently utilize Oracle's relational database management system as their underlying database storage technology. SAP has informed its customers that standard support for its legacy Business Suite (aka ECC) product will end in 2027, along with support for all non-SAP database platforms. SAP has also informed customers that the future direction for their enterprise solution is S/4HANA, a solution built explicitly for their HANA database platform. To prepare for these upcoming events, the company will migrate all of its SAP databases off of Oracle and onto SAP HANA.									
Objectives		This project lays the groundwork for the company's eventual shift to SAP's HANA-based solutions by: (1) proactively migrating SAP databases to a database technology that is fully supported by SAP beyond 2027; and (2) mitigating the risk of a complete loss of support for the current Oracle database technology in 2027.									
Scope		Project scope includes: (1) procurement of HANA software licensing to cover all migrated SAP applications; (2) data migration for all SAP applications from the Oracle database to SAP HANA; and (3) implementation of new application support policies, procedures and tools required to manage the newly migrated SAP HANA applications.									
Alternatives		Given SAP's announcement regarding the end of support for its ECC product in 2027, all customers running SAP on database software other than HANA will also lose support for their associated database software in 2027. SAP is offering no other options for databases other than HANA beyond 2027. While there is no alternative to the HANA database for SAP going forward, the Company has considered multiple options: (1) Perform a direct migration from SAP Business Suite on Oracle to S/4HANA. A direct migration to S/4HANA brings greater operational risk to the Company as both the underlying database technology and the SAP application's functionality would change simultaneously, so this alternative was not selected. (2) Remain on the current SAP Business Suite product but competitively bid support services to a third-party provider instead of SAP. This alternative was not selected because moving to a third-party support model forces the Company to remain on outdated SAP software and eliminates any possibility of benefiting from new business functionality provided by S/4HANA. It will also require the Company to accept significant risk due to the fact that SAP security patches, application patches and upgrades will not be available upon termination of the SAP maintenance agreement. (3) Migrate to SAP's Software as a Service (SaaS) implementation of S/4HANA. This alternative was not selected because an S/4HANA SaaS migration is a much more disruptive option as the Company's business processes must be adjusted to accommodate functionality differences between ECC and S/4HANA. The risk of negative business impact is significantly greater than simply changing the underlying database technology. (4) Migrate the SAP databases to HANA prior to implementing S/4HANA. This alternative was selected as it gives the Company several years to solidify its HANA database infrastructure before introducing the substantial business process changes required with S/4HANA.									
DATES (phase end)											
Initiation		Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution			
7/3/2023		7/31/2023			10/2/2023			1/2/2024			
		In-Service/Go-Live			Closeout						
		11/1/2025			12/2/2025						
FUNDING SUMMARY											
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Cap+COR		\$2,392	\$2,413	\$1,686	-	-	-	-	-	\$6,491	
O&M		\$0.181	\$0.761	\$0.411	-	-	-	-	-	\$1,353	
Total Cost of Ownership		\$2,572	\$3,174	\$2,097	-	-	-	-	-	\$7,844	
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Labor		\$0.101	\$0.382	\$0.341	-	-	-	-	-	\$0.825	
Outside Services		\$0.180	\$2,134	\$1,489	-	-	-	-	-	\$3,803	
Business Expense/Overheads		\$0.035	\$0.276	\$0.267	-	-	-	-	-	\$0,578	
Employee Benefits		-	-	-	-	-	-	-	-	-	
Materials		-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees		\$2,255	\$0,382	-	-	-	-	-	-	\$2,637	
Other		-	-	-	-	-	-	-	-	-	
Total Project Cost		\$2,572	\$3,174	\$2,097	-	-	-	-	-	\$7,844	
VALUE & IMPACTS SUMMARY											
FINANCIAL IMPACTS											
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
O&M	Reduction	-	-	-	\$(1,096)	\$(1,096)	-	-	-	\$(2,192)	
	Initial	\$0.181	\$0.761	\$0.411	-	-	-	-	-	\$1,353	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	\$0.181	\$0.761	\$0.411	\$(1,096)	\$(1,096)	-	-	-	\$(0,839)	
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	\$2,392	\$2,413	\$1,686	-	-	-	-	-	\$6,491	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	\$2,392	\$2,413	\$1,686	-	-	-	-	-	\$6,491	
Revenue	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	-	-	-	-	-	-	-	-	-	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)				-0.784							
Risk Tolerance											
Corporate Risk	Impact	Likelihood	Description								
OTHER VALUE				Description							
Type											
Risk Mitigation				By completing this work in advance of December 2027, when SAP will cease support of its Business Suite (ECC) product, and by performing this work in a phased approach (migrating to HANA database first, before migrating the application to S/4HANA), the Company avoids potential operational stability issues.							
Technology Capability				SAP is eliminating support for all databases other than HANA beginning in 2027. By migrating to HANA in advance of this 2027 date, the Company is able to eliminate its reliance on Oracle's database software and move to SAP's long-term database solution, HANA.							

REDACTED

SAP S/4HANA Implementation

SAP Support Pack Upgrade 2023-2024		Report Pulled: 11/1/2024		Item ID: 12500						
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Maintain - Interval			Work Type	Project					
Alias	, SAP Support Pack Upgrade 2023, SAP Support Pack Upgrade 2024, SAP Support Pack Upgrade 2023-2024									
Description	The SAP Support Pack Upgrade project is to maintain the currency levels of all SAP applications. This will ensure the applications are at version levels that are supported by SAP, have the latest patches and bug fixes, and provide cross-application compatibility for our business partners.									
Portfolio	IT Services > Applications > Foundational Enterprise Applications > * > * > *									
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-APPLICATION PLATFORMS & SER					
WORK OBJECTIVES										
Problem Statement	To continue to maintain SAP application version currency, across all applications, the support packs released by SAP must be routinely applied. Without maintaining application currency, the core business applications running on the SAP platform are at risk of losing vendor support, resulting in the inability to apply bug fixes and patches, including security patches, and maintain application interoperability and stability.									
Objectives	The project will add value by: (1) maintaining supportability of SAP applications; (2) mitigating system security, stability and reliability risks by ensuring the applications are up-to-date with the most current patches and bug fixes released by SAP; and (3) ensuring ongoing cross-application compatibility.									
Scope	The scope of this project includes routine support pack upgrades to all SAP applications, which include: Enterprise Core Component (ECC), Customer Relationship Manager (CRM), Enterprise Portal, Process Orchestration (PO), Business Warehouse (BW), Business Objects (BOBJ), Data Services (DS), Governance, Risk and Compliance (GRC), Solution Manager, Data Quality Manager (DQM), Graphical User Interface (GUI), Single Sign On (SSO), System Landscape Directory (SLD) and other related SAP applications.									
Alternatives	Alternatives considered include: (1) Divide the scope into individual projects by SAP application. This alternative was not selected because the efforts are interrelated and completing them separately could lead to duplication of work, especially testing efforts, and therefore potentially higher costs. (2) Migrate to SAP S/4HANA. This option was not selected at this time because it is part of the long-term digital plan and requires substantial planning and investment, (3) Balance the project scope through regular support pack upgrades. This alternative was selected because it provides the best balance of minimizing cost and maintaining support by combining multiple application upgrades through a single support pack upgrade effort.									
DATES (phase end)										
Initiation 2/1/2024	Project Plan & Scope Definition 4/1/2024 In-Service/Go-Live 10/15/2024		Final Engineering, Planning & Design 6/1/2024 Closeout 10/31/2024		Execution 7/1/2024					
FUNDING SUMMARY										
Cap+COR	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
O&M	\$0.010	\$0.159	-	-	-	-	-	-	\$0.169	
Total Cost of Ownership	\$0.010	\$0.159	-	-	-	-	-	-	\$0.169	
Labor	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Outside Services	\$0.001	\$0.007	-	-	-	-	-	-	\$0.008	
Business Expense/Overheads	\$0.009	\$0.145	-	-	-	-	-	-	\$0.154	
Employee Benefits	\$0.001	\$0.007	-	-	-	-	-	-	\$0.007	
Materials	-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost	\$0.010	\$0.159	-	-	-	-	-	-	\$0.169	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.010	\$0.159	-	-	-	-	-	-	\$0.169
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.010	\$0.159	-	-	-	-	-	-	\$0.169
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000								
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									
Technology Capability	Administrative & General (A&G) Support									
Intangibles	Ensure all SAP applications are compatible with each other.									
Intangibles	Ensure all SAP applications are fully supported by SAP.									
Risk Mitigation	Risk mitigation against system and information security related issues by ensuring that all the SAP applications have the latest patches and bug fixes.									

SAP Support Pack Upgrade 2026		Report Pulled: 11/1/2024		Item ID: 12501					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Maintain - Interval			Work Type	Project				
Alias	, SAP Support Pack Upgrade 2025, SAP Support Pack Upgrade 2026								
Description	The SAP Support Pack Upgrade project is to maintain the currency levels of all SAP applications. This will ensure the applications are at version levels that are supported by SAP, have the latest patches and bug fixes, and provide cross-application compatibility for our business partners.								
Portfolio	IT Services > Applications > Foundational Enterprise Applications > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-APPLICATION PLATFORMS & SER				
WORK OBJECTIVES									
Problem Statement	To continue to maintain SAP application version currency, across all applications, the support packs released by SAP must be routinely applied. Without maintaining application currency, the core business applications running on the SAP platform are at risk of losing vendor support, resulting in the inability to apply bug fixes and patches, including security patches, and maintain application interoperability and stability.								
Objectives	The project will add value by: (1) maintaining supportability of SAP applications; (2) mitigating system security, stability and reliability risks by ensuring the applications are up-to-date with the most current patches and bug fixes released by SAP; and (3) ensuring ongoing cross-application compatibility.								
Scope	The scope of this project includes routine support pack upgrades to all SAP applications, which include: Enterprise Core Component (ECC), Customer Relationship Manager (CRM), Enterprise Portal, Process Orchestration (PO), Business Warehouse (BW), Business Objects (BOBJ), Data Services (DS), Solution Manager, Data Quality Manager (DQM), Graphical User Interface (GUI), Single Sign On (SSO), System Landscape Directory (SLD) and other related SAP applications.								
Alternatives	Alternatives considered include: (1) Divide the scope into individual projects by SAP application. This alternative was not selected because the efforts are interrelated and completing them separately could lead to duplication of work, especially testing efforts, and therefore potentially higher costs. (2) Migrate to SAP S/4HANA. This option was not selected, because SAP S/4HANA is a multi-year project that is not expected to be completed by year-end 2026. So an alternative approach is needed to perform the application upgrades and maintain currency in the meantime. (3) Balance the project scope through regular support pack upgrades. This alternative was selected because it provides the best balance of minimizing cost and maintaining support by combining multiple application upgrades through a single support pack upgrade effort.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
2/1/2026	4/1/2026		6/1/2026		7/1/2026				
	In-Service/Go-Live		Closeout						
	10/15/2026		10/31/2026						
FUNDING SUMMARY									
	2022	2023	2024	2025	2026	2027	2028	2029 +	Total
Cap+COR	-	-	-	-	-	-	-	-	-
O&M	-	-	-	-	\$1.087	-	-	-	\$1.087
Total Cost of Ownership	-	-	-	-	\$1.087	-	-	-	\$1.087
	2022	2023	2024	2025	2026	2027	2028	2029 +	Total
Labor	-	-	-	-	\$1.015	-	-	-	\$1.015
Outside Services	-	-	-	-	-	-	-	-	-
Business Expense/Overheads	-	-	-	-	\$0.071	-	-	-	\$0.071
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	-	-	-	-	\$1.087	-	-	-	\$1.087
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS	2022	2023	2024	2025	2026	2027	2028	2029 +	Total
O&M	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	\$1.087	-	-	-	\$1.087
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	\$1.087	-	-	-	\$1.087
Cap+COR	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000							
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Technology Capability	Administrative & General (A&G) Support								
Intangibles	Ensure all SAP applications are compatible with each other.								
Intangibles	Ensure all SAP applications are fully supported by SAP.								
Risk Mitigation	Risk mitigation by ensuring all SAP applications have the latest patches and bug fixes.								

Savvynt EIGA Implementation

Security Threat Intelligence Tool			Report Pulled: 11/1/2024		Item ID: 13875				
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow				Work Type	Project			
Alias	, Security Threat Intelligence Tool								
Description	This project will implement a threat intelligence application that will actively assess physical and cyber threats in the environment, visually display historical and active threat data for situational awareness and provide alerts to employees based on location of the threat. This information will allow the Company's combined physical and cyber security operations center (Fusion Center) to alert employees who are in the proximity of a physical threat on the risks they may face, help inform decisions on hardening facility locations and alert employees of active cyber threats that are currently impacting other companies. The ability to proactively alert employees of the threats will have a positive impact on Safety and Cyber Security for the Company by reducing response time to incidents and reduce the likelihood an employee will be physically injured.								
Portfolio	Corporate Services > Security Services > Security > * > * > *								
Org	CX&T		Bus Unit	SECURITY		Dept	CX&T-SECURITY-CYBER SEC ENG & STAN		
WORK OBJECTIVES									
Problem Statement	The Company's Fusion Center and Physical Security teams currently do not have the ability to actively collect or disseminate threat intelligence in real time. This gap in technology increases the risk of physical and cyber crime to employees and company assets. As the threat landscape changes, automating data collection is essential to detecting and determining threats in real time. Currently the Company's Fusion Center manually searches through sources to collect threat intelligence. The data that is manually collected is often out of date by up to one week. This re-active approach has led to gaps in information and the inability to accurately depict the threat environment. Relying on manual processes and stale data results in employees to be put in life threatening situations. Cyber threats change daily in the environment. Spending valuable time to search manually through threat information causes delays in protecting the Company's sensitive data including electric and gas critical infrastructure, financial and customer data.								
Objectives	This project creates value for the Company by: (1) Implementing a threat intelligence tool that actively assesses threats in the environment; (2) Visually displaying historical and active threat data for situational awareness; and (3) Providing alerts to co-workers based their location. Accurate and timely information about threat actors and their tactics enables the team to proactively perform targeted investigation, containment, and remediation.								
Scope	The project scope includes: (1) Implementing a single threat intelligence application that will provide intel on both physical and cyber threats; (2) Integrating with the current security orchestration platform; and (3) Building automation to notify co-workers of physical threats that are identified through intel provided in the application.								
Alternatives	Alternatives considered include: (1) Maintaining the Company's current security posture of manually gathering information on threats through social media, law enforcement and news reports. Continue to alert employees of active threats once they are noticed by Fusion Center employees. This alternative was not selected because the process to gather the data is completely manual and the data gathered can be outdated by up to a week. Stale data can put company assets and employees in dangerous situations. Using outdated information delays response time for company crews and law enforcement to address the situation. (2) Expanding the Company's current mass notification tool use to integrate security threat intelligence intel. This alternative was not selected due to the risk of delayed response time to receive threat notification from the current vendor in comparison to other vendors in the market. (3) Building an in-house threat intelligence application to fulfill the security threat intel requirements. This alternative was not selected because developing security platforms of this type is not in the core competencies of the Company. The Company's resources don't have access to the wide range of threat data that other companies leverage to develop a threat intelligence application. In addition, the cost to maintain an in-house application of this type would not be economically practical. (4) Implementing a threat intelligence application that meets the Company's security threat intelligence requirements. This alternative was selected.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
2/7/2026	5/30/2026		7/31/2026		2/27/2027				
	In-Service/Go-Live		Closeout						
	2/27/2027		3/27/2027						
FUNDING SUMMARY									
	2025	2026	2027	2028	2029	2030	2031	2032 +	Total
Cap+COR	-	\$0.728	\$0.135	-	-	-	-	-	\$0.864
O&M	-	\$0.103	\$0.021	-	-	-	-	-	\$0.124
Total Cost of Ownership	-	\$0.831	\$0.157	-	-	-	-	-	\$0.988
	2025	2026	2027	2028	2029	2030	2031	2032 +	Total
Labor	-	\$0.145	\$0.074	-	-	-	-	-	\$0.219
Outside Services	-	\$0.050	\$0.050	-	-	-	-	-	\$0.100
Business Expense/Overheads	-	\$0.181	\$0.033	-	-	-	-	-	\$0.214
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	\$0.455	-	-	-	-	-	-	\$0.455
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	-	\$0.831	\$0.157	-	-	-	-	-	\$0.988
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2025	2026	2027	2028	2029	2030	2031	2032 +	Total
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	\$0.103	\$0.021	-	-	-	-	-	\$0.124
Incremental	-	-	-	-	-	-	-	-	-
Net	-	\$0.103	\$0.021	-	-	-	-	-	\$0.124
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	\$0.728	\$0.135	-	-	-	-	-	\$0.864
Incremental	-	-	-	-	-	-	-	-	-
Net	-	\$0.728	\$0.135	-	-	-	-	-	\$0.864
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-1.000						
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Technology Capability	Alert employees who are in the proximity of a physical threat on the risks they may face, help inform decisions on hardening facility locations and alert employees of active cyber threats that are currently impacting other companies.								
Technology Capability	Automatically pull and aggregate external threat information and Open Source Intelligence (OSINT) from disparate sources into a single source								
Technology Capability	The application will provide a single interface with high-quality intel feeds that the Company's Cyber Security Incident Response Team (CSIRT) monitors as part of its operational duties.								
Technology Capability	The Company's physical security area will benefit from the project by receiving accurate and timely information about threat actors and their tactics enables the security team to proactively perform targeted investigation, containment, and remediation.								
Technology Capability	Threat intel information sources will be filtered for context and relevance to the Company.								

Security/OT Field Modernization		Report Pulled: 11/1/2024	Item ID: 13949						
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow		Work Type						
Alias	, Security/OT Field Modernization								
Description	This project will implement new infrastructure for accomplishing improved security in the field for OT assets.								
Portfolio	IT Services > Infrastructure > * > * > * > *								
Org	CX&T	Bus Unit INFORMATION TECHNOLOGY	Dept CX&T-IT-APPLICATION PLATFORMS & SER						
WORK OBJECTIVES									
Problem Statement	Gas and Electric technicians are using corporate laptops, to manage critical OT infrastructure which does not follow cyber security best practices for managing critical infrastructure. Vendors and contractors have access to the Company's critical infrastructure using non-company laptops. Best practice is to use dedicated laptops to connect to critical infrastructure.								
Objectives	The value of this project is deploying dedicated company OT laptops and associated OT infrastructure that can move between OT locations only and providing a secure environment.								
Scope	This project will procure and configure approximately 130 devices that will be used to manage critical OT infrastructure.								
Alternatives	The Company reviewed several options to mitigate cyber security risks inherent with the use of standard corporate laptops managing critical infrastructure. The alternatives considered are: (1) Continue utilizing existing workflow of using Corporate domain laptops with software installed; (2) Bring in an outside vendor to design and implement a proposed infrastructure; (3) Considered complete disallowance of all local access to critical systems; (4) Consider extending the OT network to remote Company locations; (5) Deploy a dedicated company OT laptop and OT communications circuits, which includes cellular connectivity. The dedicated OT laptop and communications circuits presented the best way to secure the critical infrastructure by limiting internet and e-mail access. Vendors and contractors could also utilize these approved dedicated systems for managing infrastructure they help support at Company locations. Based on the analysis performed, the Company chose to deploy a dedicated OT laptop and communications circuits.								
DATES (phase end)									
Initiation 1/13/2025	Project Plan & Scope Definition 3/7/2025 In-Service/Go-Live 3/1/2026	Final Engineering, Planning & Design 4/30/2025 Closeout 6/1/2026	Execution 5/30/2025						
FUNDING SUMMARY									
	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>	<u>2032 +</u>	<u>Total</u>
Cap+COR	\$0.835	\$0.326	-	-	-	-	-	-	\$1.162
O&M	\$0.243	\$0.314	\$0.294	\$0.294	\$0.294	-	-	-	\$1.438
Total Cost of Ownership	\$1.078	\$0.640	\$0.294	\$0.294	\$0.294	-	-	-	\$2.600
	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>	<u>2032 +</u>	<u>Total</u>
Labor	\$0.341	\$0.125	-	-	-	-	-	-	\$0.467
Outside Services	-	-	-	-	-	-	-	-	-
Business Expense/Overheads	\$0.370	\$0.168	-	-	-	-	-	-	\$0.538
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	\$0.285	\$0.123	-	-	-	-	-	-	\$0.408
Licenses, Permits & Fees	\$0.035	\$0.020	-	-	-	-	-	-	\$0.055
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	\$1.031	\$0.436	-	-	-	-	-	-	\$1.467
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>	<u>2032 +</u>	<u>Total</u>
O&M	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.243	\$0.314	\$0.294	\$0.294	\$0.294	-	-	-	\$1.438
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.243	\$0.314	\$0.294	\$0.294	\$0.294	-	-	-	\$1.438
Cap+COR	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.835	\$0.326	-	-	-	-	-	-	\$1.162
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.835	\$0.326	-	-	-	-	-	-	\$1.162
Revenue	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall) -1.000									
Risk Tolerance									
<u>Corporate Risk</u>	<u>Impact</u>	<u>Likelihood</u>	<u>Description</u>						
OTHER VALUE									
<u>Type</u>	<u>Description</u>								
Technology Capability	Administrative & General (A&G) Support								
Risk Mitigation	By utilizing dedicated Operational Technology (OT) laptops without internet or e-mail access, we are mitigating the risk of a device with internet and e-mail access compromising the critical infrastructure at various Electric and Gas sites while connecting to critical control systems.								
Risk Mitigation	Mandating vendors to use a dedicated Consumers Energy devices to connect to CE industrial infrastructure mitigates risk to critical systems from unknown and untrusted devices.								
Intangibles	There could be impacts to business services, customer service, and Company reputation.								

Self Service Vendor Portal			Report Pulled: 11/1/2024		Item ID: 13942				
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow				Work Type	Project			
Alias	, Supplier Portal for Invoice Management, Vendor Portal, Self-Service Vendor Portal								
Description	The work will create an external portal for vendors to exercise self-service features to streamline and automate purchase order and invoice management and improve visibility to invoice and payment status.								
Portfolio	Corporate Services > Financial Services > Controller > General Accounting > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY		Dept	CX&T-IT-CORPORATE			
WORK OBJECTIVES									
Problem Statement	For Accounts Payable, vendors must repeatedly interact with the Company through multiple channels to ask questions, submit invoices, or check invoice or payment status, including email, physical mail, or the phone. Once a request is submitted, additional calls, emails, or Company portal requests are required for status updates, to make payments, or to respond to missed contacts. The existing service portal has functionality limited to incoming vendor inquiries only and lacks self-service options for vendor invoice and payment management and lacks the ability for vendors to utilize touchless invoice creation from POs. The limitations of the existing portal result in waste and inefficiencies for vendors and Company employees/contractors, which currently includes 6 contracted resources, and creates the potential for late payments or missing early payment discounts. For Supply Chain, vendors must repeatedly interact with the Company through multiple channels to ask questions, update POs (quantities, costs, shipping dates) including email, physical mail, or the phone. Once a request is submitted, additional calls, emails, or Company portal requests are required for status updates or to respond to missed contacts. The existing service portal has functionality limited to incoming vendor inquiries only and lacks self-service options for updates to the POs. The limitations of the existing portal result in waste and inefficiencies for vendors and Company employees/contractors, which currently includes 4 employee resources. This also creates the potential for late payments, missing early payment discounts, delays in receiving due to lack of shipping notifications from vendors, delays to scheduled work due to lack of acknowledgement and lead time adherence, and the inability to enforce contractual obligations.								
Objectives	This project creates value for the Company by: (1) creating self-service functionality/increasing touchless invoice creation/processing that allows the vendor to select items from a purchase order to create an invoice on demand; (2) providing vendors with real-time invoice and payment status, increasing employee productivity by eliminating waste; (3) allow self-service updates of vendor master data (banking info, remittance info, etc.); (4) fewer late payments by vendors thus reducing Company follow up and tracking; (5) creating better visibility for vendors to take advantage of early payment discounts thus reducing related vendor inquiries; (6) reducing vendor questions related to invoice and purchase orders through self-service functions and portal information; (7) reducing the cost per invoice; (8) creating self-service functionality/increasing touchless PO creation/processing that allows the vendor to select items from a purchase order to update quantities, costs, and shipping dates; (9) providing vendors with real-time PO information, increasing employee productivity by eliminating waste; and (10) fewer late deliveries by vendors thus reducing Company follow up and tracking.								
Scope	The project scope includes: (1) submit an RFP for a vendor portal solution and implementation; (2) configure ability for vendors to more efficiently and more accurately self-submit invoices and POs electronically; (3) configure ability for vendors to self-convert items on a purchase order to an invoice; (4) configure ability for vendors to view invoice and payment status; (5) configure ability for vendors to make changes to SAP master data, including PO line item details; (6) configure ability to offer/process dynamic discounting (7) create new reports and dashboards; (8) enabling method to validate vendors should have access to the portal and removing access when appropriate; (9) configure ability for vendors to make self-serve changes to shipping status and delivery dates; and (10) integration to vendor invoice management system and SAP.								
Alternatives	Alternatives considered include: (1) Continue use of the current manual processes which results in waste and inefficiencies for employees and vendors. This could also result in late payments and lost discounts for vendors; (2) Build a custom solution. This option was not selected as the Company has a vendor portal, that is only leveraged for vendors to ask questions. As well, it doesn't leverage best practices; (3) Building a combination of custom and standard integration to existing solutions. This option was not selected because it doesn't follow industry best practices; (4) expand our current vendor portal. This option was not chosen due to limited functionality and not matching capability roadmaps; and (5) implement a new SaaS solution specific to a vendor portal experience. Option (5) is the preferred option because it leverages industry best practices with a proven solution; provides application reliability, security, and stability through ongoing vendor support; and brings innovation to vendors via real-time processing.								
DATES (phase end)									
Initiation 9/1/2025	Project Plan & Scope Definition 3/1/2026 In-Service/Go-Live 8/1/2026		Final Engineering, Planning & Design 5/1/2026 Closeout 8/15/2026		Execution 7/1/2026				
FUNDING SUMMARY									
	2024	2025	2026	2027	2028	2029	2030	2031 +	Total
Cap+COR	-	-	\$0.135	-	-	-	-	-	\$0.135
O&M	-	-	\$0.128	\$0.575	\$0.575	\$0.575	-	-	\$1.855
Total Cost of Ownership	-	-	\$0.263	\$0.575	\$0.575	\$0.575	-	-	\$1.989
	2024	2025	2026	2027	2028	2029	2030	2031 +	Total
Labor	-	-	\$0.175	\$0.032	\$0.032	\$0.032	-	-	\$0.271
Outside Services	-	-	\$0.080	\$0.080	\$0.080	\$0.080	-	-	\$0.320
Business Expense/Overheads	-	-	\$0.008	\$0.008	\$0.008	\$0.008	-	-	\$0.034
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	-	\$0.450	\$0.450	\$0.450	-	-	\$1.350
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	-	-	\$0.263	\$0.570	\$0.570	\$0.570	-	-	\$1.974
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2024	2025	2026	2027	2028	2029	2030	2031 +	Total
O&M	-	-	\$(1.056)	\$(1.056)	\$(1.056)	\$(1.056)	-	-	\$(4.222)
Reduction	-	-	\$0.128	\$0.575	\$0.575	\$0.575	-	-	\$1.855
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	\$(0.927)	\$(0.480)	\$(0.480)	\$(0.480)	-	-	\$(2.368)
Cap+COR	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	\$0.135	-	-	-	-	-	\$0.135
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	\$0.135	-	-	-	-	-	\$0.135
Revenue	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			1.126						
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Technology Capability	Administrative & General (A&G) Support								
Technology Capability	Advanced Shipping Notice - Automated error handling / issue resolution workflow								
Risk Mitigation	Advanced Shipping Notice - Automated error handling / issue resolution workflow - reduces incorrect information, introduces better governance over Advanced Shipping Notices								
Intangibles	Advanced Shipping Notice - Automated open PO detail listing for notice: PO number, item numbers, item description, price, quantity, delivery date, shipping address - not currently experienced functionality								
Risk Mitigation	AP Automation & Reporting - Ability to Assign Dates to Proper Fields (Contract Term Compliance)								
Risk Mitigation	AP Automation & Reporting - Accrual Reporting								
Intangibles	AP Automation & Reporting - Contract/PO based E-Invoicing via Portal - better decisions with quicker reporting								
Intangibles	AP Automation & Reporting - Front End Duplicate & Error Checking - meeting accuracy metrics								
Risk Mitigation	AP Automation & Reporting - Invoices are visible & retrievable from within SAP								
Intangibles	AP Automation & Reporting - PO Flip: Immediate invoice creation - reduces time and costs per invoice								
Intangibles	Automated SAP system update - PO - decreases manual entries/changes								
Intangibles	Improved vendor relations due to self-service features: providing real-time and customized invoices and providing visibility for vendor discounts.								
Additional 'Other Value' statement(s) - Open BPS to view									

Service Suite Upgrade		Report Pulled: 11/1/2024		Item ID: 6837						
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Maintain - Interval			Work Type	Project					
Alias	Service Suite Upgrade									
Description	The project will: (1) implement a new version of Service Suite Work Management that allows for easier distribution of work orders to the field; and (2) maintain a current version on a vendor supported platform for this critical enterprise application used across Operations and Engineering.									
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *									
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-ELECTRIC					
WORK OBJECTIVES										
Problem Statement	The Service Suite Application is the mission critical work management software delivering work orders for customers. The current solution lacks an integrated view of traffic and a readable dispatch work schedule. The upgrade will improve application deployment to field devices and keep the application current to maintain vendor support.									
Objectives	The project will add value by: (1) implementing a new version that provides the appropriate level of vendor support for this 24x7 critical solution that provides over 100,000 work orders to the field weekly; (2) implementing Service Suite Workforce Management and migrating to cloud-based configurations that will simplify support and speed deployment of future changes; (3) providing the new feature of live traffic display on the Dispatch Application which will allow for better dispatch decision making; and (4) improving the readability and usability of the Dispatch Application schedule view, which will allow for a better understanding of employees' work schedule.									
Scope	The scope of the project includes: (1) implementing the new version of Service Suite Workforce Management; and (2) integrating to a mobile mapping and driving directions application with Service Suite for mobile mapping on the field device to improve safety, response, usability, and supportability of the system.									
Alternatives	The alternatives considered included: (1) remaining on the current Service Suite version, which requires additional manual steps in the emergency response and work assignment; (2) creating a custom-developed solution, which increases waste and inefficiency, without the same level of Enterprise Resource Planning integration; or (3) changing the current vendor, which was not selected due to the increased complexity of migration and organizational change management. Upgrading Service Suite Field Service Management was chosen because it allows the Company to stay on the supported and familiar platform already being used in the field and provides additional business value and benefits to operations.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution					
1/2/2023	1/31/2023 In-Service/Go-Live 12/14/2023		2/28/2023 Closeout 12/31/2023		12/13/2023					
FUNDING SUMMARY										
Cap+COR	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
O&M	\$1,077	-	-	-	-	-	-	-	\$1,077	
Total Cost of Ownership	\$0,103	-	-	-	-	-	-	-	\$0,103	
	\$1,181	-	-	-	-	-	-	-	\$1,181	
Labor	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Outside Services	\$0,351	-	-	-	-	-	-	-	\$0,351	
Business Expense/Overheads	\$0,666	-	-	-	-	-	-	-	\$0,666	
Employee Benefits	\$0,164	-	-	-	-	-	-	-	\$0,164	
Materials	-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost	\$1,181	-	-	-	-	-	-	-	\$1,181	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0,103	-	-	-	-	-	-	-	\$0,103
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0,103	-	-	-	-	-	-	-	\$0,103
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$1,077	-	-	-	-	-	-	-	\$1,077
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$1,077	-	-	-	-	-	-	-	\$1,077
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000								
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
Technology Obsolescence	Medium	High	Vendor support for this application is required to run the latest version so that appropriate patches and software versioning can be applied in a safe and timely manner.							
OTHER VALUE										
Type	Description									
Technology Capability	Administrative & General (A&G) Support									
Risk Mitigation	Critical application is unsupported by the vendor, putting the Company at risk for support for a business critical application.									
Avoided Costs	field productivity: 3000 users at 10 minutes per day, improved software deployment - 3x deployments per year at a 30 minute reduction, ~ 4000 users - ELECTRIC - ELECTRIC LINE CORRECTIVE MAINTENANCE - \$13,500 O&M/\$31,500 CAPITAL									
Avoided Costs	field productivity: 3000 users at 10 minutes per day, improved software deployment - 3x deployments per year at a 30 minute reduction, ~ 4000 users - ELECTRIC - ELECTRIC METER - \$40,500 O&M/\$94,500 CAPITAL									
Avoided Costs	field productivity: 3000 users at 10 minutes per day, improved software deployment - 3x deployments per year at a 30 minute reduction, ~ 4000 users - GAS - GAS DIST - \$9,000 O&M/\$36,000 CAPITAL									
Avoided Costs	field productivity: 3000 users at 10 minutes per day, improved software deployment - 3x deployments per year at a 30 minute reduction, ~ 4000 users - GAS - GAS SERVICE/METER - \$67,500 O&M/\$67,500 CAPITAL									
Intangibles	Live traffic display on Dispatch Application, Improved readability/usability of Dispatch Application, FieldWorker app enhancements to close gaps with Mobile Application and Enhanced Gantt Chart									

SiteCore Primary Upgrade 2025			Report Pulled: 11/1/2024			Item ID: 12727				
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category		Maintain - Interval				Work Type Project				
Alias		, SiteCore Upgrade 2025, SiteCore Primary Upgrade 2025								
Description		The project will refresh all components of the website hosting, delivery, search, and analytics applications to add new features and improve search capabilities. Sitecore is the content management application for the consumersenergy.com website, a channel many customers use for accessing account information and bill payment.								
Portfolio		IT Services > Applications > Common Delivery Systems > * > * > *								
Org		CX&T		Bus Unit INFORMATION TECHNOLOGY		Dept CX&T-IT-CUSTOMER EXP & OPS				
WORK OBJECTIVES										
Problem Statement		Sitecore is currently operating on version 10.3, which is due to end mainstream support at the end of 2025. If this occurs, there will be an increase in support and maintenance fees of 10% above the annual subscription spend in order to purchase extended support, security updates and fixes will only be made available if the extended support is purchased, and product support for errors or required hotfixes that may impact platform stability will not be available even if extended support is purchased.								
Objectives		The project will add value for the Company by: (1) avoiding costs for extended maintenance agreements required at the end of mainstream support; (2) ensuring that the website retains the most up-to-date security posture; and (3) supporting the Company's CXI goals by improving reliability and performance.								
Scope		The project scope includes: (1) upgrading the Sitecore content management software to include content hosting and delivery allowing the use of new features and functionality; (2) migrating the Sitecore platform to the most up-to-date hardware and software by refreshing the application and database servers to a newer version of Windows Server and SQL Server.								
Alternatives		Alternatives considered include: (1) Delay the upgrade. This alternative was not chosen due to the current version falling outside of the mainstream support window, requiring an additional 10% in maintenance fees. Along with rapidly changing feature sets that are continually being developed by the vendor, the Company would be in a worse position to handle constantly changing cyber threats; (2) Migrate to a cloud solution. This alternative was not chosen due to the cost/benefit analysis of re-architecting our current Sitecore implementation to facilitate cloud migration is not viable at this time; and (3) Upgrade Sitecore on a two-year cycle. This alternative was chosen as it provides up-to-date functionality, stability, and mitigates cyber security risks while minimizing cost and impact.								
DATES (phase end)										
Initiation		Project Plan & Scope Definition			Final Engineering, Planning & Design		Execution			
1/15/2025		3/22/2025			5/24/2025		9/30/2025			
		In-Service/Go-Live			Closeout					
		10/1/2025			10/16/2025					
FUNDING SUMMARY										
		2025	2026	2027	2028	2029	2030	2031	2032 +	Total
Cap+COR		\$0.116	-	-	-	-	-	-	-	\$0.116
O&M		\$0.245	-	-	-	-	-	-	-	\$0.245
Total Cost of Ownership		\$0.361	-	-	-	-	-	-	-	\$0.361
		2025	2026	2027	2028	2029	2030	2031	2032 +	Total
Labor		\$0.305	-	-	-	-	-	-	-	\$0.305
Outside Services		-	-	-	-	-	-	-	-	-
Business Expense/Overheads		\$0.056	-	-	-	-	-	-	-	\$0.056
Employee Benefits		-	-	-	-	-	-	-	-	-
Materials		-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees		-	-	-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-	-	-
Total Project Cost		\$0.361	-	-	-	-	-	-	-	\$0.361
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS		2025	2026	2027	2028	2029	2030	2031	2032 +	Total
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.245	-	-	-	-	-	-	-	\$0.245
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.245	-	-	-	-	-	-	-	\$0.245
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.116	-	-	-	-	-	-	-	\$0.116
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.116	-	-	-	-	-	-	-	\$0.116
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000								
Risk Tolerance										
Corporate Risk		Impact	Likelihood	Description						
OTHER VALUE										
Type		Description								
Avoided Costs		Avoid the cost of purchasing extended support from the vendor which comes at a 10% increase from normal licensing costs.								
Risk Mitigation		If this project is not completed the company and the customers are at greater risk of encountering more reliability issues and cyber threats which could compromise the website. Keeping the Sitecore platform up to date will improve overall performance and reduce likelihood of operational issues. Additionally, the risk of cyber threats is reduced as patches and fixes are released on routine schedules.								
Risk Mitigation		If website is either unavailable or not performing sufficiently, it will lead to a negative impact to Consumers Energy reputations with customers and lower JD Power scores. The website is a core contact point for the Company to interact with their customers. When Sitecore is not functioning completely the website will be impacted; potentially preventing customers from viewing their bill, make a payment, report an outage, and other functions.								

SiteCore Secondary Upgrade 2023				Report Pulled: 11/1/2024				Item ID: 12442			
EXECUTIVE SUMMARY											
BASIC INFORMATION											
Work Category		Maintain - Interval						Work Type		Project	
Alias		2017 BizTalk Upgrade, SiteCore Upgrade 2024, SiteCore Upgrade 2023, SiteCore Secondary Upgrade 2023-2024, SiteCore Secondary Upgrade 2023									
Description		The project will ensure that all components of the website hosting, delivery, search, and analytics remain on the latest version, thereby retaining low-cost, unlimited vendor support. Sitecore is the content management application for the ConsumersEnergy.com website, a channel that many customers use for accessing account information and bill payment.									
Portfolio		IT Services > Applications > Common Delivery Systems > * > * > *									
Org		CX&T			Bus Unit INFORMATION TECHNOLOGY			Dept CX&T-IT-CUSTOMER EXP & OPS			
WORK OBJECTIVES											
Problem Statement		Sitecore is currently operating on version 10.0, which is due to end mainstream support at the end of 2023. If this occurs, there will be an increase in support and maintenance fees of 10% above the annual subscription spend. Additionally, the Sitecore Experience Platform, a feature used for customer data analytics and marketing, has deprecated support for MongoDB and will require a move to SQL to maintain functionality.									
Objectives		The project will add value for the Company by: (1) avoiding costs for extended maintenance agreements required at the end of mainstream support; (2) ensuring that the website retains the most up-to-date security posture; (3) supporting the Company's CXI goals by improving reliability and performance; and (4) updating the customer analytics platform to SQL from MongoDB, ensuring the latest supported technology is used.									
Scope		The project scope includes: (1) upgrading the Sitecore content management software to the latest available version; and (2) migrating the Sitecore customer analytics module to the latest supported SQL platform.									
Alternatives		Alternatives considered include: (1) Delay the upgrade. This alternative was not chosen due to the current version falling outside of the mainstream support window, requiring an additional 10% in maintenance fees. Along with rapidly changing feature sets that are continually being developed by the vendor, the Company would be in a worse position to handle constantly changing cyber threats; (2) Undergo a full website redesign. This solution was not chosen as the cost/benefit analysis revealed this option is not viable at the time of filing; and (3) Upgrade Sitecore on a two-year cycle. This alternative was chosen as it provides up-to-date functionality, stability, and mitigates cyber security risks while minimizing cost and impact.									
DATES (phase end)											
Initiation		Project Plan & Scope Definition				Final Engineering, Planning & Design			Execution		
1/3/2023		2/14/2023				3/14/2023			8/24/2023		
		In-Service/Go-Live				Closeout					
		8/24/2023				9/15/2023					
FUNDING SUMMARY											
		2023	2024	2025	2026	2027	2028	2029	2030 ±	Total	
Cap+COR		-	-	-	-	-	-	-	-	-	
O&M		\$0.081	-	-	-	-	-	-	-	\$0.081	
Total Cost of Ownership		\$0.081	-	-	-	-	-	-	-	\$0.081	
		2023	2024	2025	2026	2027	2028	2029	2030 ±	Total	
Labor		\$0.053	-	-	-	-	-	-	-	\$0.053	
Outside Services		\$0.023	-	-	-	-	-	-	-	\$0.023	
Business Expense/Overheads		\$0.005	-	-	-	-	-	-	-	\$0.005	
Employee Benefits		-	-	-	-	-	-	-	-	-	
Materials		\$0.000	-	-	-	-	-	-	-	\$0.000	
Licenses, Permits & Fees		-	-	-	-	-	-	-	-	-	
Other		-	-	-	-	-	-	-	-	-	
Total Project Cost		\$0.081	-	-	-	-	-	-	-	\$0.081	
VALUE & IMPACTS SUMMARY											
FINANCIAL IMPACTS											
		2023	2024	2025	2026	2027	2028	2029	2030 ±	Total	
O&M	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	\$0.081	-	-	-	-	-	-	-	\$0.081	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	\$0.081	-	-	-	-	-	-	-	\$0.081	
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	-	-	-	-	-	-	-	-	-	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	-	-	-	-	-	-	-	-	-	
Revenue	Reduction	-	-	-	-	-	-	-	-	-	
	Initial	-	-	-	-	-	-	-	-	-	
	Incremental	-	-	-	-	-	-	-	-	-	
	Net	-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)		-1.000									
Risk Tolerance											
Corporate Risk		Impact	Likelihood	Description							
OTHER VALUE											
Type		Description									
Technology Capability		Customer Management - As a result of this project, we will better be able to continue to manage customer experience by ensuring the website stays on a vendor supported version of the software.									
Risk Mitigation		If this project is not completed the company and the customers are at greater risk of encountering more reliability issues and cyber threats which could compromise the website. Keeping the Sitecore platform up to date will improve overall performance and reduce likelihood of operational issues. Additionally, the risk of cyber threats is reduced as patches and fixes are released on routine schedules.									
Risk Mitigation		If website is either unavailable or not performing sufficiently, it will lead to a negative impact to Consumers Energy reputations with customers and lower JD Power scores. The website is a core contact point for the Company to interact with their customers. When Sitecore is not functioning completely the website will be impacted; potentially preventing customers from viewing their bill, make a payment, report an outage, and other functions.									

Software Asset - Service Management Upgrade		Report Pulled: 11/1/2024		Item ID: 13928					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow			Work Type	Project				
Alias	, Software Asset - Service Management Upgrade								
Description	This project will optimize the software asset management process by systematically monitor, assess and oversee software licenses and compliance using Software Asset Management Professional.								
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-APPLICATION PLATFORMS & SER				
WORK OBJECTIVES									
Problem Statement	The on-premises software asset management technology currently used in the Company lacks compatibility to automate license reclamation, cost optimization, and license forecasting. These software asset management constraints lead to the inability to optimize software license purchasing and effective license demand management.								
Objectives	This project will create value by ensuring the Company's technology requirements are met through a comprehensive and cost-effective software asset management processes and workflow. Specifically, by replacing the on-premise application, the project will: (1) streamline the software request workflow including license reclamation and software deployment; (2) help ensure compliance with software license agreements; (3) identify opportunities of license optimization leading to cost optimization; (4) mitigate risk related to software asset management; (5) optimize license forecasting and (6) increase asset visibility.								
Scope	The project scope includes: (1) the implementation of software asset management tool; (2) the establishment of process and process roles needed to support the assets; and (3) retirement of the on-premise software asset management tool.								
Alternatives	Alternatives considered included: (1) Choose an alternate Cloud based asset management system. This alternative was not chosen as it would require introducing and integrating an additional vendor product into the technical landscape. (2) Develop a custom solution. This alternative was not chosen since the cost to build and maintain similar capabilities and to integrate the custom solution would not be feasible or cost effective. (3) Do nothing. This alternative was not selected as the current Software Asset Management tool that lacks integration and automation and will not address optimizing and effective management of licenses and purchases. (4) Develop and implement an on-premises Software Asset Management solution. This alternative ultimately chosen has strengths in software asset management and its integration capabilities with other platform modules from the same vendor. It offers a unified platform that can help license compliance, optimization and automation.								
DATES (phase end)									
Initiation 6/1/2023	Project Plan & Scope Definition 9/1/2023 In-Service/Go-Live 2/29/2024		Final Engineering, Planning & Design 9/30/2023 Closeout 3/15/2024		Execution 10/1/2023				
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	\$1.050	\$0.070	-	-	-	-	-	-	\$1.120
O&M	\$0.180	\$0.080	\$0.005	\$0.005	\$0.005	\$0.005	-	-	\$0.280
Total Cost of Ownership	\$1.230	\$0.150	\$0.005	\$0.005	\$0.005	\$0.005	-	-	\$1.401
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	\$0.074	\$0.053	-	-	-	-	-	-	\$0.128
Outside Services	\$0.331	\$0.084	-	-	-	-	-	-	\$0.415
Business Expense/Overheads	\$0.029	\$0.013	-	-	-	-	-	-	\$0.042
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	\$0.796	-	-	-	-	-	-	-	\$0.796
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	\$1.230	\$0.150	-	-	-	-	-	-	\$1.381
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	Reduction	\$(0.180)	\$(0.064)	-	-	-	-	-	\$(0.244)
	Initial	\$0.180	\$0.080	\$0.005	\$0.005	\$0.005	\$0.005	-	\$0.280
	Incremental	-	-	-	-	-	-	-	-
	Net	\$0.180	\$(0.100)	\$(0.059)	\$0.005	\$0.005	\$0.005	-	\$0.036
Cap+COR	Reduction	-	-	-	-	-	-	-	-
	Initial	\$1.050	\$0.070	-	-	-	-	-	\$1.120
	Incremental	-	-	-	-	-	-	-	-
	Net	\$1.050	\$0.070	-	-	-	-	-	\$1.120
Revenue	Reduction	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-
B/C Ratio (Overall) -0.803									
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Avoided Costs	Avoided cost by having automation built to reclaim licenses when a resource leaves the Company. SAM Pro will serve as the new Software Asset Management system of record, resulting in an annual cost savings of \$66,000 and providing a single source to manage and request software and hardware. The cost savings here is from the 0.5 FTE BKCL resource (\$43,500) and 0.25 FTE CE resource (\$22,500) that are not needed to manually maintain this process.								
Technology Capability	By replacing the on-premise infrastructure with a Cloud Based System aligns with the Company goal of moving to the Cloud for better scalability and flexibility. This capability will help mitigate the labor of maintaining the current on-premise infrastructure with patching.								
Technology Capability	SAM Pro provides the capability for better Automation on Software requests. With SNOW when a user requests for new Software, it took some time to check for the license availability and fulfill the request, but with SAM Pro the check happens real time and the latest version is procured. Governance improvements were made by adding extra checks in the workflow for EA (enterprise Architecture) and Cyber Security to do a high level review of the Software being requested to address any concerns early on.								
Technology Capability	With the implementation of SAM Pro, there is no longer the need to sync up the software versions on 2 different systems (ServiceNow and SNOW) along with keeping the Product Owners and Technical Owners in sync for the software. SAM Pro also ensures that the SCCM ID has the latest version of the software to be pushed over to the user PC's when requested.								

Software Platform Refresh		Report Pulled: 11/1/2024		Item ID: 6843						
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category	Maintain - Interval			Work Type	Project					
Alias	Software Platform Refresh									
Description	The Software Platform Refresh project will upgrade server operating systems, hypervisors, databases and infrastructure platforms to retain low-cost vendor support.									
Portfolio	IT Services > Infrastructure > Data Center - Enterprise Computing > * > * > *									
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-INFRASTRUCTURE PLATFORMS &					
WORK OBJECTIVES										
Problem Statement	For systems that go beyond their normal manufacturer support ending, there will be increased support and maintenance fees of 20% to 100% above current support and maintenance depending on vendor. Completing this project allows the organization to (1) avoid high support costs; (2) provide for system security; and (3) stay current to promote seamless interoperability among servers, applications, and databases. Aging platforms are more susceptible to security vulnerabilities and performance issues that ultimately could affect the business and customers.									
Objectives	The project will add value for the Company by: (1) avoiding costs for special maintenance agreements required at the end of normal manufacturer support; (2) ensuring reliability and compliance with Information Security requirements; (3) improving data center environment stability; and (4) avoiding the need for high risk upgrades that cross multiple versions.									
Scope	The project scope includes: (1) upgrading operating systems and databases on servers that are near end of support with a given vendor; and (2) maintaining hypervisors and infrastructure platforms at the current version for stability and performance.									
Alternatives	A funding options matrix was completed to review the potential alternatives. The alternatives identified were: (1) Complete the full scope of the solution for \$1 million in order to eliminate the need for ongoing extended support; (2) Reduce the scale of the solution, which requires \$1.6 million in ongoing extended support; (3) Reduce the scale of the solution even further, which requires \$2.4 million in ongoing extended support; (4) Do not complete a software platform refresh, which requires \$3.3 million in ongoing extended support. Alternative 1 was selected as the most cost effective solution to ensure ongoing system stability; seamless integration; and mitigation of cyber-security risks without the significant cost of extended support necessary for end of life software systems.									
DATES (phase end)										
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution					
	In-Service/Go-Live		Closeout							
FUNDING SUMMARY										
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Cap+COR	-	-	-	-	-	-	-	-	-	
O&M	\$0.138	\$0.083	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	-	\$0.788	
Total Cost of Ownership	\$0.138	\$0.083	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	-	\$0.788	
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Labor	\$0.089	\$0.019	\$0.106	\$0.106	\$0.106	\$0.106	\$0.106	-	\$0.638	
Outside Services	\$0.042	\$0.005	-	-	-	-	-	-	\$0.047	
Business Expense/Overheads	\$0.008	\$0.001	\$0.007	\$0.007	\$0.007	\$0.007	\$0.007	-	\$0.046	
Employee Benefits	-	-	-	-	-	-	-	-	-	
Materials	-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees	-	\$0.057	-	-	-	-	-	-	\$0.057	
Other	-	-	-	-	-	-	-	-	-	
Total Project Cost (Annual)	\$0.138	\$0.083	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	-	\$0.788	
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.138	\$0.083	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	-	\$0.788
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0.138	\$0.083	\$0.113	\$0.113	\$0.113	\$0.113	\$0.113	-	\$0.788
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000								
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
Technology Obsolescence	High	High	There is a high risk of technology obsolescence that would result in a high impact to business and customer service operations. To mitigate this risk Consumers Energy can choose to pay significantly more for extended maintenance or complete the project with increased functionality at a lower cost.							
OTHER VALUE										
Type	Description									
Technology Capability	Administrative & General (A&G) Support									
Avoided Costs	Consumers Energy has 1,112 instances of operating systems, databases, and hypervisors that will require special maintenance contracts by January of 2020. Microsoft has identified additional maintenance costs of \$705 per Central Processing Unit (CPU) Core running Windows 2008 starting in January of 2020. Consumers Energy has 4,718 CPU Cores running in the Windows 2008 environment for a total of \$3,326,190 in additional maintenance charges.									
Risk Mitigation	This project addresses the problem of new security vulnerabilities that would not be patched under extended maintenance.									
Risk Mitigation	Through this project, Consumers Energy will be able to proactively patch systems to avoid bugs and stay current to promote seamless interoperability among servers.									

SolarWinds Performance Monitoring Expansion Upgrade				Report Pulled: 11/1/2024				Item ID: 13495			
EXECUTIVE SUMMARY											
BASIC INFORMATION											
Work Category		Maintain - Interval						Work Type Project			
Alias		, SolarWinds, SolarWinds Performance Monitoring Expansion Upgrade									
Description		This project will develop an IT observability and monitoring solution that provides an aggregate view of IT system availability and performance.									
Portfolio		IT Services > Applications > Common Delivery Systems > * > * > *									
Org		CX&T			Bus Unit INFORMATION TECHNOLOGY			Dept CX&T-IT-INFRASTRUCTURE PLATFORMS &			
WORK OBJECTIVES											
Problem Statement		The current IT enterprise monitoring approach doesn't provide a comprehensive view of application and infrastructure health resulting in unplanned service interruptions, extended service interruptions, and system performance degradation. In addition, unplanned service interruptions have a negative impact on business partners ability to provide reliable services to utility customers.									
Objectives		This project will allow IT to reduce the number of monitoring tools and consolidate end-to-end view of IT performance alerts to a single view. These actions will prevent major service interruptions, reduce major incident Mean Time to Restore, improve system stability, and ultimately avoid O&M labor cost.									
Scope		This project scope includes: (1) performing a proof of value assessment for the following SolarWinds modules, Hybrid Cloud Observability ("HCO")/ Database Performance Analytics ("DPA")/ AppOptics/Pingdom); (2) transition applications monitored by AppDynamics to SolarWinds; (3) deploy configure agent base infrastructure monitors for applications and infrastructure (4) retire AppDynamics; (5) transition critical applications not monitored by AppDynamics to SolarWinds; (6) create performance monitoring dashboards for critical systems (7) define monitoring templates for rapid deployment of new monitoring services; and (8) training co-workers on use and management of SolarWinds.									
Alternatives		The following alternatives were considered: (1) Renew current licenses for both SolarWinds and AppDynamics without achieving any savings or operational efficiencies. (2) Evaluate other vendors to replace AppDynamics at a reduced cost for service. Initial deployment and annual cost would significantly increase regardless of service selected. In addition, the other vendors considered did not have the capabilities to monitor both application and infrastructure which did not allow for a consolidated approach to be adopted and/or reduction in licensing and ongoing maintenance cost. As a result, this alternative was not selected. (3) In conclusion, SolarWinds was determined to be the most cost-effective approach because of the expanded capabilities offered through the following modules, HCO/ DPA/AppOptics/ Pingdom that meets the needs of IT to proactively monitor systems and retire tools with similar capabilities to reduce ongoing maintenance cost. Therefore, the alternative selected is to move forward with deploying the expanded services offered by SolarWinds.									
DATES (phase end)											
Initiation 5/12/2023		Project Plan & Scope Definition 5/19/2023 In-Service/Go-Live 10/27/2023				Final Engineering, Planning & Design 6/30/2023 Closeout 11/30/2023			Execution 9/29/2023		
FUNDING SUMMARY											
Cap+COR		2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
		\$1.763	\$0.004	-	-	-	-	-	-	\$1.767	
O&M		\$0.332	\$0.004	-	-	-	-	-	-	\$0.336	
Total Cost of Ownership		\$2.095	\$0.008	-	-	-	-	-	-	\$2.103	
Labor		2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
		\$0.112	\$0.005	-	-	-	-	-	-	\$0.118	
Outside Services		\$0.140	\$0.001	-	-	-	-	-	-	\$0.141	
Business Expense/Overheads		\$0.033	\$0.001	-	-	-	-	-	-	\$0.034	
Employee Benefits		-	-	-	-	-	-	-	-	-	
Materials		-	-	-	-	-	-	-	-	-	
Licenses, Permits & Fees		\$1.810	\$0.001	-	-	-	-	-	-	\$1.811	
Other		-	-	-	-	-	-	-	-	-	
Total Project Cost		\$2.095	\$0.008	-	-	-	-	-	-	\$2.103	
VALUE & IMPACTS SUMMARY											
FINANCIAL IMPACTS											
O&M		2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Reduction		\$(0.012)	\$(0.064)	\$(0.062)	\$(0.015)	-	-	-	-	\$(0.152)	
Initial		\$0.332	\$0.004	-	-	-	-	-	-	\$0.336	
Incremental		-	-	-	-	-	-	-	-	-	
Net		\$0.321	\$(0.060)	\$(0.062)	\$(0.015)	-	-	-	-	\$0.184	
Cap+COR		2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Reduction		\$(0.058)	\$(0.320)	\$(0.311)	\$(0.078)	-	-	-	-	\$(0.767)	
Initial		\$1.763	\$0.004	-	-	-	-	-	-	\$1.767	
Incremental		-	-	-	-	-	-	-	-	-	
Net		\$1.704	\$(0.316)	\$(0.311)	\$(0.078)	-	-	-	-	\$1.000	
Revenue		2023	2024	2025	2026	2027	2028	2029	2030 +	Total	
Reduction		-	-	-	-	-	-	-	-	-	
Initial		-	-	-	-	-	-	-	-	-	
Incremental		-	-	-	-	-	-	-	-	-	
Net		-	-	-	-	-	-	-	-	-	
B/C Ratio (Overall)				-0.492							
Risk Tolerance											
Corporate Risk	Impact	Likelihood	Description								
OTHER VALUE											
Type	Description										
Risk Mitigation	Proceeding with a standard renewal of SolarWinds and the inability to retire App Dynamics in its current state will decrease the level of end-to-end proactive monitoring required resulting in increasing services interruptions and operational costs.										

Spatial Asset Management		Report Pulled: 11/1/2024		Item ID: 13940					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow			Work Type	Project				
Alias	, Spatial Asset Management								
Description	This initiative will implement SAP's Spatial Asset Management module. It will allow users to view assets, notifications, and orders geospatially using a map. The module will allow the Company to create and maintain asset maintenance plans for each segment of our gas and electric distribution networks (linear assets). The Company will create linear assets as technical objects (such as functional locations and equipment) and store linear data. The Company will enable creation of maintenance plans for these technical objects which result in notifications, maintenance orders, and measurement documents. We will enable monitoring the condition of our linear assets, identify where there is damage or a defect (using the start point and end point and offset), and manage all types of maintenance tasks (planned, unplanned, and preventative).								
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-WORK MANAGEMENT				
WORK OBJECTIVES									
Problem Statement	Currently, the Company lacks spatial visualization and spatial awareness of work and assets impacting requirements for first time quality and impacting the ability to plan, bundle and execute nearby work. The lack of a linear asset management capability affects the full work management value stream resulting in overproduction of asset maintenance activity such as assessments, surveys, and inspections.								
Objectives	This project creates value for the Company by (1) providing capability in SAP to view assets, notifications, and work orders on a map; (2) providing location awareness in SAP for assets and work; (3) establishing linear asset management capability in SAP for gas and electric delivery networks; and (4) enabling end-to-end map-based workflows.								
Scope	The scope of this project encompasses implementation in SAP of the Spatial Asset Management module.								
Alternatives	Alternatives considered include: (1) Implement a cloud-based individualized asset integration between GIS and SAP. This alternative was not selected as it proves ineffective in addressing needs of the end-to-end work management value stream while increasing the technical footprint of customization. There are also performance concerns with cloud to on-prem integrations; (2) Implement work group centric approaches to viewing work on a map. This alternative was not selected as it does not support standard operation through the entire work management value stream; (3) Do nothing. This alternative was not selected as this would result in increasing costs and inefficiencies in gas and electric work management; and (4) The alternative to implement the Spatial Asset Management module in SAP was chosen as it expands use of a core technology investment, supports current investment in our work management value stream, and is compatible with our GIS technology.								
DATES (phase end)									
Initiation 12/4/2023	Project Plan & Scope Definition 4/30/2024 In-Service/Go-Live 11/1/2025		Final Engineering, Planning & Design 12/31/2024 Closeout 11/30/2025		Execution 10/31/2025				
FUNDING SUMMARY									
Cap+COR	2023 \$1.532	2024 \$0.912	2025 \$0.714	2026 -	2027 -	2028 -	2029 -	2030 + -	Total \$3.158
O&M	-	\$0.099	\$0.279	\$0.172	\$0.172	\$0.172	\$0.172	-	\$1.067
Total Cost of Ownership	\$1.532	\$1.011	\$0.993	\$0.172	\$0.172	\$0.172	\$0.172	-	\$4.225
Labor	2023 -	2024 \$0.689	2025 \$0.240	2026 -	2027 -	2028 -	2029 -	2030 + -	Total \$0.929
Outside Services	\$0.160	\$0.029	\$0.420	-	-	-	-	-	\$0.609
Business Expense/Overheads	\$0.100	\$0.061	\$0.161	-	-	-	-	-	\$0.322
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	\$1.272	\$0.233	-	-	-	-	-	-	\$1.505
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	\$1.532	\$1.011	\$0.821	-	-	-	-	-	\$3.364
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	\$0.099	\$0.279	\$0.172	\$0.172	\$0.172	\$0.172	-	\$1.067
Incremental	-	-	-	-	-	-	-	-	-
Net	-	\$0.099	\$0.279	\$0.172	\$0.172	\$0.172	\$0.172	-	\$1.067
Cap+COR	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$1.532	\$0.912	\$0.714	-	-	-	-	-	\$3.158
Incremental	-	-	-	-	-	-	-	-	-
Net	\$1.532	\$0.912	\$0.714	-	-	-	-	-	\$3.158
Revenue	-	-	-	-	-	-	-	-	-
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000							
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE						Description			
Type									
Intangibles						SAM supports a single platform for engineers and designers that consolidates multiple data sources & third-party tools and provides templates to accelerate projects.			
Intangibles						SAM supports workflow and collaboration thru smart notifications, annotations, and messaging embedded throughout the platform.			

Standard Work Plan		Report Pulled: 11/1/2024		Item ID: 13969					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Strategic/Grow			Work Type	Initiative				
Alias	, Standard Work Plan								
Description	The Gas and Electric Resource Planning process is solely reliant on spreadsheets and manual data collection from numerous, disparate sources. It is not only time-consuming but also prone to errors, leading to potential inefficiencies in resource allocation and a lack of detailed, insightful planning. The sole use of spreadsheets makes analyses and what-if scenario development cumbersome. The lack of workplan controls contributes to the completion of pull-ahead work resulting in unnecessary OT and contractor expense. Implementing a centralized planning platform that will interface with existing systems like SAP, DAPP, and EAM Dashboard would transform our planning organization, offering a clear view of planned work and ensuring that executed work is aligned with strategic objectives. In addition, a more integrated system that leverages automation and real-time data analytics would allow for the immediate, what-if scenario planning the business needs to support sound, data-driven decision-making. The tool, alongside necessary process and system enhancements will streamline the workflow and ultimately lead to schedule quality and ensure prudent overtime and contractor usage through reducing the amount of unplanned work breaking into the work management process. A shift to a digital solution that fully aligns resources, work units and feeds the schedule will represent a significant step forward in resource management, aligning with modern best practices.								
Portfolio	Electric Delivery Systems > * > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-WORK MANAGEMENT				
WORK OBJECTIVES									
Problem Statement	The Gas and Electric Resource Planning process is solely reliant on spreadsheets and manual data collection from numerous, disparate sources. It is not only time-consuming but also prone to errors, leading to potential inefficiencies in resource allocation and a lack of detailed, insightful planning. The sole use of spreadsheets makes analyses and what-if scenario development cumbersome. The lack of workplan controls contributes to the completion of pull-ahead work resulting in unnecessary OT and contractor expense.								
Objectives	The project will add value by: (1) improving Work Planning Annual Forecast Process: This involves the enhancement of automated inputs, processing, and reporting with a shift towards a more asset-driven prioritization method and; (2) converting Monthly Work Plans into Weekly Schedules: Establish a process that seamlessly transforms monthly work plans into executable weekly schedules for easy handoff from planning to scheduling; (3) providing the ability to Run Forecasting and Planning Scenarios: Execute forecasting and planning scenarios and provide comparative analysis; (4) improve system visibility of Work Planned jobs increasing forecast accuracy of downstream processes ; and (5) creating multiple dashboards based on the audience of the data providing visibility across all levels of Operations Leadership as well as Supply Chain proactively informing of upcoming workload, potential gaps, opportunities for contingencies if levers are pulled, and clean executable work keeping our workforce fully engaged and productive. This results in improved Field Operations and Customer Satisfaction with delivery commitments and meeting reliability and compliance dates.								
Scope	The project scope includes the following: (1) developing a system for Work Planning Annual and Monthly forecast with automation; (2) creating the ability to translate the Monthly forecast into an executable Weekly Schedule; (3) creating technology for running Planning Scenarios with ability to compare scenarios for optimized field execution; (4) improving system visibility of Work Planned jobs increasing forecast accuracy of downstream processes (ie. materials); and (5) building Dashboards and reports to provide visibility and help management maintain process control.								
Alternatives	Alternatives considered: (1) Purchase commercially available system. This option was not selected as a single all encompassing system does not link the Annual forecasting to execution. Products reviewed included Prometheus. (2) Microsoft Excel based solution, extending the Microsoft excel based solution was not selected as it did not provide the level of data integration for controlling large number of forecasted work items. (3) Development of a system that integrates with our SAP investment. This option was not selected as it does not align to expected value delivery timeline. (4) Purchase a SaaS solution to enable planning & forecasting with integration to our SAP work management system. The fourth alternative was selected because it aligns to the expected value delivery timeline and meets the functional requirements.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
6/4/2024	6/25/2024 In-Service/Go-Live 1/31/2025		9/13/2024 Closeout 2/28/2025		11/29/2024				
FUNDING SUMMARY									
	2024	2025	2026	2027	2028	2029	2030	2031 +	Total
Cap+COR	-	\$0.922	-	-	-	-	-	-	\$0.922
O&M	-	\$0.892	\$0.753	\$0.753	\$0.753	\$0.753	-	-	\$3.905
Total Cost of Ownership	-	\$1.815	\$0.753	\$0.753	\$0.753	\$0.753	-	-	\$4.827
	2024	2025	2026	2027	2028	2029	2030	2031 +	Total
Labor	-	\$0.510	-	-	-	-	-	-	\$0.510
Outside Services	-	\$0.578	\$0.213	\$0.213	\$0.213	\$0.213	-	-	\$1.430
Business Expense/Overheads	-	\$0.282	\$0.015	\$0.015	\$0.015	\$0.015	-	-	\$0.341
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	\$0.445	\$0.445	\$0.445	\$0.445	\$0.445	-	-	\$2.226
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	-	\$1.815	\$0.673	\$0.673	\$0.673	\$0.673	-	-	\$4.507
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2024	2025	2026	2027	2028	2029	2030	2031 +	Total
O&M									
Reduction	-	\$0.100	-	-	-	-	-	-	\$0.100
Initial	-	\$0.892	\$0.753	\$0.753	\$0.753	\$0.753	-	-	\$3.905
Incremental	-	-	-	-	-	-	-	-	-
Net	-	\$0.792	\$0.753	\$0.753	\$0.753	\$0.753	-	-	\$3.805
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	\$0.922	-	-	-	-	-	-	\$0.922
Incremental	-	-	-	-	-	-	-	-	-
Net	-	\$0.922	-	-	-	-	-	-	\$0.922
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-0.978						
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
OTHER VALUE									
Type	Description								
Avoided Costs	Reduced capital cost @25% of annual average cost of orders providing \$1,600,193 cost avoidance								
Avoided Costs	Reduced capital cost @25% of annual average cost of orders providing \$1,770,741 cost avoidance								
Avoided Costs	Reduced O&M cost @25% of annual average cost of orders providing \$37,582 cost avoidance								
Avoided Costs	Reduced O&M cost @25% of annual average cost of orders providing \$511,138 cost avoidance								

Talent Management Enablement			Report Pulled: 11/1/2024			Item ID: 11828				
EXECUTIVE SUMMARY										
BASIC INFORMATION										
Work Category		Strategic/Grow				Work Type			Project	
Alias		, Talent Management Enablement								
Description		The project will deliver technology solutions to enable best-in-class Talent Management programs and processes that are critical to achieve the Company's overarching Talent Strategy Plan. The Talent Strategy Plan is a key enabler of the company's Integrated Resource Plan (IRP), Electric Distribution Infrastructure Investment Plan (EDIP), and Natural Gas Delivery Plan (NGDP). Effective Talent Management programs and processes are critical to develop the skills, capabilities, productivity, and experience necessary to successfully execute these plans that deliver clean, reliable, affordable energy through an exceptional customer experience.								
Portfolio		IT Services > Applications > Corporate Services > * > * > *								
Org		CX&T		Bus Unit		INFORMATION TECHNOLOGY		Dept		CX&T-IT-CORPORATE
WORK OBJECTIVES										
Problem Statement		Significant technology improvements are required to transform Human Resources (HR) to develop the skills and capabilities necessary to achieve the Company's strategic destination. Currently, many Talent Management processes are manually managed with little or no technology enablement. Specifically, the talent compensation processes are mostly manually done outside the system which introduces waste, and a potential for errors. In addition there is a limited visibility of competency gaps within the workforce. The Company cannot effectively place talent in accelerated development programs aligned to competency gaps, nor can it recognize and motivate employees for quickly increasing competency and performance. Furthermore, the Company operates in an increasingly competitive job market where candidates and employees expect best-in-class processes, technologies and experiences relative to their employment and career development. The lack of full technical enablement across Talent Management programs poses a risk to employee attraction, retention and limits the ability to develop the right skills at the right time to deliver on Company strategies.								
Objectives		This project will add value to the Company through technology that will enable: (1) fully functional integrated compensation module; (2) accelerated and targeted talent development of critical skills necessary to deliver on the Company's commitment to clean energy and exceptional customer experience; (3) transparency into talent and skill gaps in order to identify retention and service delivery risks within critical areas, as well as inform succession and hiring strategies; (4) improved knowledge transfer, business continuity, and customer service during a time when retirement eligibility is high and risk of knowledge loss has the potential to negatively impact customer service and satisfaction; and (5) increased efficiency and quality of talent management through simplified and automated processes that reduce costs associated with recruiting, onboarding, and developing employees. Talent Management Enablement will deliver the best-practice technology to enable and enhance (1) Fully functional integrated talent compensation management; (2) Simplified and automated talent management process for employee lifecycle management from on-boarding through Off-boarding; (3) Succession Planning and Business Continuity; (4) Career Development and Employee Retention.								
Scope		The scope will include: (1) implementation of each system/application; (2) integration with current systems, applications and processes as applicable; (3) retrofit current systems and applications to ensure a seamless end-to-end experience of HR processes; (4) delivery of mobile capabilities for in scope processes; (5) reporting and analytics dashboards and report insights for in scope processes.								
Alternatives		Three alternatives were considered for these Talent Management programs and processes: (1) Develop custom, internally built solutions that could meet most requirements. This alternative was not selected because a custom solution would result in higher overall costs, higher maintenance costs, fewer upgrades, and would not leverage industry best practices to ensure best-in-class delivery. (2) Select an on-premise software tool. This alternative was not selected because it requires internal maintenance, increases infrastructure costs, and would have less frequent upgrades which would hinder the Company's ability to ensure processes are evolving alongside industry trends and best practices. (3) Evaluate and select cloud/SaaS solution(s) which would have lower infrastructure costs, less internal maintenance than an on-premise solution, and would be built and evolved with upgrades based on industry best practices. Based on research, internal experience with successful best practice implementations, and vendor demonstrations, option three was selected.								
DATES (phase end)										
Initiation		Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
2/1/2023		3/1/2023		5/1/2023		7/1/2023				
		In-Service/Go-Live		Closeout						
		8/30/2025		10/30/2025						
FUNDING SUMMARY										
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR		\$0.229	\$0.441	\$0.551	-	-	-	-	-	\$1.222
O&M		\$0.204	\$0.165	\$0.096	\$0.100	\$0.100	-	-	-	\$0.665
Total Cost of Ownership		\$0.433	\$0.606	\$0.647	\$0.100	\$0.100	-	-	-	\$1.886
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor		\$0.020	\$0.390	\$0.225	-	-	-	-	-	\$0.635
Outside Services		\$0.388	\$0.209	\$0.285	-	-	-	-	-	\$0.881
Business Expense/Overheads		\$0.026	\$0.007	\$0.137	-	-	-	-	-	\$0.170
Employee Benefits		-	-	-	-	-	-	-	-	-
Materials		-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees		-	-	-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-	-	-
Total Project Cost		\$0.433	\$0.606	\$0.647	-	-	-	-	-	\$1.686
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS										
		2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.204	\$0.165	\$0.096	\$0.100	\$0.100	-	-	-	\$0.665
	Incremental	-	-	-	-	-	-	-	-	-
Net		\$0.204	\$0.165	\$0.096	\$0.100	\$0.100	-	-	-	\$0.665
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0.229	\$0.441	\$0.551	-	-	-	-	-	\$1.222
	Incremental	-	-	-	-	-	-	-	-	-
Net		\$0.229	\$0.441	\$0.551	-	-	-	-	-	\$1.222
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
Net		-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)				-1.000						
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
OTHER VALUE										
Type	Description									
Technology Capability	Administrative & General Support									
Intangibles	Avoid inability to meet and support quality and timely delivery of the Company's customer-centric strategy									
Technology Capability	Deliver mobile-enabled Talent Management processes that will facilitate leaders' ability to minimize administrative downtime by increasing accessibility to core talent management processes, forms, approvals, and tracking.									
Intangibles	Delivery of best-in-class technically enabled talent programs will enhance the attraction and retention of top talent in an increasingly competitive and geographically expanding job market.									
Technology Capability	Eliminate wasted hours associated with the manual management of the Succession Planning process									
Risk Mitigation	Mitigate risk due to 19% of the current customer-facing workforce that has 25+ years tenure by enabling effective Talent Management processes to prepare for these retirements to ensure continuation of strong customer delivery by facilitating employee development, engagement, succession planning and performance management									
Risk Mitigation	Mitigate the risk of losing high performing talent or not being able to recruit the strongest talent to deliver on company strategies which support customer service and value delivery.									
Technology Capability	Reduce waste generated by manual consolidation of data for reporting purposes by delivering standard and custom Talent Management reporting.									

Tibco API Exchange Gateway Replacement		Report Pulled: 11/1/2024		Item ID: 11728					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	Maintain - Interval			Work Type	Project				
Alias	, Tibco API Exchange Gateway Replacement								
Description	This project is looking to retire the API Exchange Gateway within the Tibco ESB and replace it with a new solution called Microsoft Self-Hosted Gateway. The API Exchange Gateway is used by the TIBCO ESB to integrate to external vendors, all new development will need to be done to integrate this solution.								
Portfolio	IT Services > Applications > Foundational Enterprise Applications > * > * > *								
Org	CX&T	Bus Unit	INFORMATION TECHNOLOGY	Dept	CX&T-IT-APPLICATION PLATFORMS & SER				
WORK OBJECTIVES									
Problem Statement	The Tibco API Exchange Gateway is anticipated to be sunset by the vendor, as they have already dropped all development of enhancements for the platform.								
Objectives	This project creates value for the Company by: (1) Avoiding the risk of running a project no longer supported by the vendor (i.e. the Tibco Enterprise Service Bus API Exchange module), and (2) Enabling the Company the opportunity to move to a product that is more stable, secure, and usable.								
Scope	The project scope includes: (1) Conducting a RFP to procure a replacement product and work with architecture team to migrate the product. (2) Migrate all current work items to the new platform. (3) Conduct appropriate testing to ensure all Service Level Agreements are met.								
Alternatives	Alternatives considered include: (1) Evaluating the replacement of the current product with a new product that is not already in the Company environment. This alternative was not selected because it would not be cost effective. (2) Keeping the current application as-is. This alternative was not selected as the vendor for the current platform has stopped all development for this product. (3) Leveraging an existing solution already in the Company environment. This alternative was selected as it avoids multiple solutions with redundant capabilities and avoids costs for supporting and maintaining a second solution.								
DATES (phase end)									
Initiation	Project Plan & Scope Definition		Final Engineering, Planning & Design		Execution				
1/15/2024	2/5/2024		3/5/2024		4/1/2024				
	In-Service/Go-Live		Closeout						
	8/5/2024		12/13/2024						
FUNDING SUMMARY									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Cap+COR	-	\$0.900	-	-	-	-	-	-	\$0.900
O&M	-	\$0.123	-	-	-	-	-	-	\$0.123
Total Cost of Ownership	-	\$1.022	-	-	-	-	-	-	\$1.022
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
Labor	-	\$0.913	-	-	-	-	-	-	\$0.913
Outside Services	-	\$0.106	-	-	-	-	-	-	\$0.106
Business Expense/Overheads	-	\$0.003	-	-	-	-	-	-	\$0.003
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	-	-	-	-	-	-	-	-
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	-	\$1.022	-	-	-	-	-	-	\$1.022
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2023	2024	2025	2026	2027	2028	2029	2030 +	Total
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	\$0.123	-	-	-	-	-	-	\$0.123
Incremental	-	-	-	-	-	-	-	-	-
Net	-	\$0.123	-	-	-	-	-	-	\$0.123
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	\$0.900	-	-	-	-	-	-	\$0.900
Incremental	-	-	-	-	-	-	-	-	-
Net	-	\$0.900	-	-	-	-	-	-	\$0.900
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)		-1.000							
Risk Tolerance									
Corporate Risk	Impact	Likelihood	Description						
Technology Obsolescence	High	Medium	TIBCO has announced that the API Exchange Gateway will no longer be developed and supported, so we are at risk of being reliant on software that is obsolete.						
OTHER VALUE									
Type	Description								

Tracking & Traceability			Report Pulled: 11/1/2024				Item ID: 6863			
EXECUTIVE SUMMARY										
BASIC INFORMATION										
	Work Category	Comply - One Time					Work Type	Project		
	Alias	Tracking & Traceability								
	Description	Tracking and Traceability is a project driven from proposed regulatory rules that will require utilities to map new and replacement installations with tracking and traceability data for plastic pipes, fittings, and fusions for the lifetime of the asset.								
	Portfolio	IT Services> Applications> Delivery Systems> * > * > *								
	Org	CX&T		Bus Unit INFORMATION TECHNOLOGY			Dept	CX&T-IT-GAS		
WORK OBJECTIVES										
Problem Statement		The Company does not currently have a Tracking and Traceability program that will meet PHMSA proposed requirements (PHMSA-2014-0098), also known as the Plastic Pipe Rule. Tracking and traceability refers to the collection of information that provides manufacturing, material type, and location information for pipe and components. PHMSA defines the terms "tracking" and "traceability" as follows: (1) Tracking is information that provides for the identification and location of pipe and components, the date installed, and the person who made the joints in the pipeline system; and (2) Traceability is within American Society for Testing and Materials (ASTM) F2897-11a and includes a unique identifier for the location of manufacture, production, lot information, size, material, pressure rating, temperature rating and, as appropriate, type, grade and model of pipe and components. PHMSA will be requiring each pipeline operator to maintain tracking and traceability information for the life of installed pipeline segments. The lack of adequate traceability for plastic pipe and tracking of pipe location prevents gas pipeline operators from having enough information to identify systemic issues related to incidents involving plastic pipe. The lack of this information makes it difficult for operators and regulators to determine whether plastic pipe or component failures are related to a certain type or vintage of material, specific product defect or design, heat/lot of the product, or whether it was produced by a certain manufacturer at a certain time. The lack of information can result in excessive pipe excavations due to an inability to locate the affected sections of pipe or fittings when responding to plastic pipe or component manufacturer recalls.								
Objectives		This project will develop a sustainable Tracking and Traceability program that will meet PHMSA requirements (PHMSA-2014-0098) which address the proposed tracking and traceability requirements. The project adds value by capturing traceability data via barcode readers and location tracking information via Global Positioning System (GPS) equipment to improve the quality of data and assist the Company in determining future scopes of work in the event of any component manufacture recalls.								
Scope		The scope of work will include: (1) changes in SAP Supply Chain processes to capture the required barcode information for all plastic components used in gas distribution and service lines; (2) changes in SAP Work Management processes to account for capturing barcode information as part of material components added to work orders, capturing fusion information from work order completion and capturing GPS coordinates from work order completion; (3) changes in GIS to capture GPS coordinates of plastic components and GPS coordinates of component fusions; (4) building of a repository for tracking and traceability reporting and analysis; (5) purchasing barcode reading equipment for storerooms and gas distribution trucks; and (6) purchasing of GPS locating equipment to capture coordinates.								
Alternatives		Alternatives considered: (1) The do nothing alternative, which was not selected because it would expose the company to significant legal and financial risk resulting from non-compliance. (2) Internally develop digital technology supporting the tracking & traceability standards included in the PHMSA-2014-0098 plastic pipe rule. The second alternative is being pursued by the Company.								
DATES (phase end)										
Initiation 1/1/2025		Project Plan & Scope Definition 4/1/2025 In-Service/Go-Live 4/30/2027			Final Engineering, Planning & Design 9/1/2025 Closeout 6/30/2027		Execution 9/30/2026			
FUNDING SUMMARY										
		2025	2026	2027	2028	2029	2030	2031	2032 +	Total
Cap+COR		\$3,326	\$7,278	\$4,261	-	-	-	-	-	\$14,865
O&M		\$0,755	\$0,753	\$0,320	\$0,320	\$0,320	\$0,320	\$0,075	-	\$2,864
Total Cost of Ownership		\$4,082	\$8,031	\$4,581	\$0,320	\$0,320	\$0,320	\$0,075	-	\$17,729
		2025	2026	2027	2028	2029	2030	2031	2032 +	Total
Labor		\$2,125	\$2,125	-	-	-	-	-	-	\$4,250
Outside Services		\$0,406	\$0,404	-	-	-	-	-	-	\$0,810
Business Expense/Overheads		\$1,015	\$1,245	\$0,249	-	-	-	-	-	\$2,508
Employee Benefits		-	-	-	-	-	-	-	-	-
Materials		\$0,291	\$4,012	\$4,012	-	-	-	-	-	\$8,315
Licenses, Permits & Fees		\$0,245	\$0,245	\$0,245	\$0,245	\$0,245	\$0,245	-	-	\$1,470
Other		-	-	-	-	-	-	-	-	-
Total Project Cost		\$4,082	\$8,031	\$4,506	\$0,245	\$0,245	\$0,245	-	-	\$17,354
VALUE & IMPACTS SUMMARY										
FINANCIAL IMPACTS		2025	2026	2027	2028	2029	2030	2031	2032 +	Total
O&M	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$0,755	\$0,753	\$0,320	\$0,320	\$0,320	\$0,320	\$0,075	-	\$2,864
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$0,755	\$0,753	\$0,320	\$0,320	\$0,320	\$0,320	\$0,075	-	\$2,864
Cap+COR	Reduction	-	-	-	-	-	-	-	-	-
	Initial	\$3,326	\$7,278	\$4,261	-	-	-	-	-	\$14,865
	Incremental	-	-	-	-	-	-	-	-	-
	Net	\$3,326	\$7,278	\$4,261	-	-	-	-	-	\$14,865
Revenue	Reduction	-	-	-	-	-	-	-	-	-
	Initial	-	-	-	-	-	-	-	-	-
	Incremental	-	-	-	-	-	-	-	-	-
	Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)				-1.000						
Risk Tolerance										
Corporate Risk	Impact	Likelihood	Description							
Gas Distribution System	Medium	Medium	DRAM Risk Model - Distribution risk model accuracy. Improve quality of gas pipe attribution. Improve location of leak location.							
Compliance - Gas Code	Low	Medium	MPSC Non-compliance - Excavation Tickets; Construction practices - failure to install components (through capturing the barcode we have check/balance)							
OTHER VALUE										
Type	Description									
Risk Mitigation	Accurate positional data (values in particular) leads to better emergency response.									
Technology Capability	Automation for asset and location capture to GIS.									
Avoided Costs	Data collection efforts through bar code scanning automation vs manual entry of bar code numbers. Average annual savings based upon 10 mins saved at \$200 / hour across 10,000 work orders = approximately \$360,000									
Intangibles	Data collection for asset information being much more accurate									
Risk Mitigation	Ease isolation/plan of attack for Risk Mitigation (DIMP System Integrity)									
Risk Mitigation	Expired material identification (Pipe or fittings exposed to UV) (link to supply chain business case)									
Intangibles	Fusion collection tied to each joint - Equipment used; Operator OQ									
Risk Mitigation	Improve coordination with 3rd party entities.									
Intangibles	Leak Data accuracy and analysis									
Risk Mitigation	Location of factory recalled components									
Intangibles	Public Reputation: What we might get from the public being a world-class company. Less damage to property with subsequent maintenance.									
Technology Capability	Quality control capabilities in real-time									

TSA Critical Facility Structure		Report Pulled: 11/1/2024		Item ID: 12443					
EXECUTIVE SUMMARY									
BASIC INFORMATION									
Work Category	<u>Comply - One Time</u>			Work Type	<u>Project</u>				
Alias	<u>, TSA Critical Facility Structure</u>								
Description	This project will implement enhanced security measures outlined by the Transportation Security Administration (TSA) for critical facility assets in order to bring the locations up to enhanced status and avoid non-compliances. This project will increase the security and reliability of gas delivery to our customers while also meeting federal requirements.								
Portfolio	<u>Corporate Services > Security Services > Security > * > * > *</u>								
Org	<u>CX&T</u>	Bus Unit	<u>SECURITY</u>	Dept	<u>CX&T-SECURITY-COMPLIANCE</u>				
WORK OBJECTIVES									
Problem Statement	Pipeline facilities that are deemed critical are required to apply enhanced security measures. Today, the Company currently has designated 4 locations as critical. However, based on the April 2021 update to the TSA Pipeline Security Guidelines, Section 5 (Critical Facility Criteria), a significant number of our gas infrastructure that were not previously subject to evaluation will now fall into scope. As the Company continues to analyze the remainder of our gas assets, there is the potential for an additional 1,000 pipeline facilities (pipeline interconnections, metering and/or regulating stations, pump stations, compressor stations, operational control facilities, main line valve, tank farms and terminals, etc.) may be deemed critical. The Company will be taking a phased implementation approach and will begin the process by implementing the enhanced security measures at the reminder of our compressor stations. Failure to update our sites will put the Company out of compliance with the updated guidelines.								
Objectives	This project provides value to the Company by: (1) Implementing enhanced security measures outlined by the TSA for four critical assets; and (2) Increasing the security and reliability of gas delivery to our customers while meeting federal requirements.								
Scope	This project will implement the following enhanced security measures: (1) access controls; (2) access readers; (3) cameras; (4) video and audio programming; (5) fencing and barriers; (6) gates; (7) locks and key control; (8) fence intrusion; (9) subcontractor work of trenching poles, etc.; (10) facility lighting; (11) background investigations for personnel working at the site; (12) security equipment maintenance and testing; (13) security vulnerability assessments; (14) security communication plans; (15) personnel training; and (16) security drills and exercises for the following locations.								
Alternatives	Alternatives considered were: (1) To not implement the enhanced security measures outlined by the Transportation Security Administration (TSA) for critical facility assets. This option was not chosen due to the risk of not complying with the TSA enhanced security measures. (2) To implement the enhanced security measures outlined by the Transportation Security Administration (TSA) for critical facility assets. This alternative was chosen to avoid the risk of not complying with the TSA enhance security measures, such as increased vulnerability of attacks, financial penalties, and operational disruptions.								
DATES (phase end)									
Initiation 1/1/2023	Project Plan & Scope Definition 3/31/2023 In-Service/Go-Live 11/1/2025		Final Engineering, Planning & Design 6/30/2023 Closeout 11/30/2025		Execution 10/31/2025				
FUNDING SUMMARY									
	2021	2022	2023	2024	2025	2026	2027	2028 +	Total
Cap+COR	\$0.074	\$1.000	\$1.866	\$3.797	\$2.352	-	-	-	\$9.088
O&M	\$0.285	\$0.124	\$0.060	\$0.030	\$0.086	-	-	-	\$0.585
Total Cost of Ownership	\$0.358	\$1.124	\$1.927	\$3.827	\$2.438	-	-	-	\$9.673
	2021	2022	2023	2024	2025	2026	2027	2028 +	Total
Labor	\$0.131	\$0.100	\$0.243	\$0.084	\$0.480	-	-	-	\$1.039
Outside Services	\$0.227	\$0.650	\$0.639	\$2.846	\$0.800	-	-	-	\$5.162
Business Expense/Overheads	\$0.000	\$0.024	\$0.056	\$0.028	\$0.158	-	-	-	\$0.267
Employee Benefits	-	-	-	-	-	-	-	-	-
Materials	-	\$0.350	\$0.987	\$0.868	\$1.000	-	-	-	\$3.206
Licenses, Permits & Fees	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total Project Cost	\$0.358	\$1.124	\$1.927	\$3.827	\$2.438	-	-	-	\$9.673
VALUE & IMPACTS SUMMARY									
FINANCIAL IMPACTS									
	2021	2022	2023	2024	2025	2026	2027	2028 +	Total
O&M									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.285	\$0.124	\$0.060	\$0.030	\$0.086	-	-	-	\$0.585
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.285	\$0.124	\$0.060	\$0.030	\$0.086	-	-	-	\$0.585
Cap+COR									
Reduction	-	-	-	-	-	-	-	-	-
Initial	\$0.074	\$1.000	\$1.866	\$3.797	\$2.352	-	-	-	\$9.088
Incremental	-	-	-	-	-	-	-	-	-
Net	\$0.074	\$1.000	\$1.866	\$3.797	\$2.352	-	-	-	\$9.088
Revenue									
Reduction	-	-	-	-	-	-	-	-	-
Initial	-	-	-	-	-	-	-	-	-
Incremental	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
B/C Ratio (Overall)			-1.000						
Risk Tolerance									
<u>Corporate Risk</u>	<u>Impact</u>	<u>Likelihood</u>	<u>Description</u>						
OTHER VALUE									
<u>Type</u>	<u>Description</u>								

Work Management Scheduling Analytics and Reporting				Report Pulled: 11/1/2024				Item ID: 6811			
EXECUTIVE SUMMARY											
BASIC INFORMATION											
Work Category	Strategic/Grow						Work Type	Project			
Alias	DCO Scheduling Tool Project, DOET Scheduling Tool Project, Work Management Scheduling, Analytics, and Reporting, Work Management Scheduling Analytics and Reporting										
Description	The project will implement a solution to optimize the key components of the Distribution Planning and Scheduling functions including forecasting, work order intake, resource identification, work schedule creation, work execution preparation and associated work order analytics.										
Portfolio	IT Services > Applications > Common Delivery Systems > * > * > *										
Org	CX&T		Bus Unit	INFORMATION TECHNOLOGY			Dept	CX&T-IT-WORK MANAGEMENT			
WORK OBJECTIVES											
Problem Statement	The Distribution Planning, Scheduling and Administrative Support & Financial Services (Work Plan Strategy) teams are utilizing manually intensive work methods, systems and forecasting models. These inefficiencies impact the creation of work plans, lack predictive capacity planning, and reduce productivity of operational partners.										
Objectives	The project will add value by providing: (1) streamlined processes tied to workload review and preparatory analysis, leading to increased focus on workload priority, execution of work and a reduction of human struggle; (2) increased accuracy in crew work schedules, leading to improved customer satisfaction and on-time delivery of customer requested work, system integrity work, and gas compliance requirements; (3) reduced manual scheduling steps, reporting and analysis of data associated with work management processes and systems; thereby minimizing the risk of human error hours spent developing and updating crew route sheets; and (4) improved forecasting accuracy, that results in greater transparency into the weekly schedule and associated work plan.										
Scope	The project scope includes: (1) implement a solution to facilitate the review of work orders from various engineering organizations, allowing for streamlined check-in of work orders; (2) implement a scheduling tool that utilizes predictive modeling and advanced analytics and streamlines daily schedule modifications; (3) enhance integration with the Arcos application to bring in employee capacity and availability information; (4) integrate with SAP to retrieve work order data and manage record keeping requirements; (5) enhance integration with Field Service Suite (FSS) for quicker access to MISS DIG information and work order assignments; and (6) implement associated analytics and reporting.										
Alternatives	Three primary alternatives were considered for this project: (1) Automating manual data movement across excel and current systems through Robotic Process Automation. This option was not chosen because it will not meet base requirements and will not provide desired insights into whether the schedule supports operating priorities and metrics, financial scenarios, first time completion of work, and daily goals; (2) Integrating an off-the-shelf planning and scheduling system. This option is not preferred due to associated up-front and long-term costs; and (3) Implementing a hybrid of an off-the-shelf planning component with custom built scheduling functions. This is the preferred option to provide a more cost-effective and targeted fit for the organization.										
DATES (phase end)											
Initiation	Project Plan & Scope Definition			Final Engineering, Planning & Design			Execution				
1/11/2022	4/16/2022 In-Service/Go-Live 10/9/2024			6/18/2022 Closeout 10/16/2024			1/28/2023				
FUNDING SUMMARY											
	2022	2023	2024	2025	2026	2027	2028	2029 +	Total		
Cap+COR	\$0.825	\$0.952	\$0.506	-	-	-	-	-	\$2.283		
O&M	\$0.071	\$0.046	\$0.059	\$0.075	\$0.075	\$0.075	\$0.075	-	\$0.477		
Total Cost of Ownership	\$0.896	\$0.998	\$0.566	\$0.075	\$0.075	\$0.075	\$0.075	-	\$2.760		
	2022	2023	2024	2025	2026	2027	2028	2029 +	Total		
Labor	\$0.122	\$0.195	\$0.448	-	-	-	-	-	\$0.765		
Outside Services	\$0.678	\$0.630	\$0.045	-	-	-	-	-	\$1.353		
Business Expense/Overheads	\$0.088	\$0.141	\$0.013	-	-	-	-	-	\$0.241		
Employee Benefits	-	-	-	-	-	-	-	-	-		
Materials	-	\$0.000	-	-	-	-	-	-	\$0.000		
Licenses, Permits & Fees	\$0.009	\$0.032	\$0.059	-	-	-	-	-	\$0.100		
Other	-	-	-	-	-	-	-	-	-		
Total Project Cost	\$0.896	\$0.998	\$0.566	-	-	-	-	-	\$2.460		
VALUE & IMPACTS SUMMARY											
FINANCIAL IMPACTS											
	2022	2023	2024	2025	2026	2027	2028	2029 +	Total		
O&M											
Reduction	-	\$(0.045)	\$(0.054)	\$(0.054)	\$(0.054)	\$(0.054)	\$(0.054)	-	\$(0.314)		
Initial	\$0.071	\$0.046	\$0.059	\$0.075	\$0.075	\$0.075	\$0.075	-	\$0.477		
Incremental	-	-	-	-	-	-	-	-	-		
Net	\$0.071	\$0.001	\$0.006	\$0.021	\$0.021	\$0.021	\$0.021	-	\$0.163		
Cap+COR											
Reduction	-	\$(0.159)	\$(0.191)	\$(0.191)	\$(0.191)	\$(0.191)	\$(0.191)	-	\$(1.113)		
Initial	\$0.825	\$0.952	\$0.506	-	-	-	-	-	\$2.283		
Incremental	-	-	-	-	-	-	-	-	-		
Net	\$0.825	\$0.793	\$0.315	\$(0.191)	\$(0.191)	\$(0.191)	\$(0.191)	-	\$1.170		
Revenue											
Reduction	-	-	-	-	-	-	-	-	-		
Initial	-	-	-	-	-	-	-	-	-		
Incremental	-	-	-	-	-	-	-	-	-		
Net	-	-	-	-	-	-	-	-	-		
B/C Ratio (Overall)											
-0.567											
Risk Tolerance											
Corporate Risk	Impact	Likelihood	Description								
OTHER VALUE											
Type	Description										
Technology Capability	5 - Work Management										
Intangibles	As a result of improved forecasting accuracy, greater transparency into the weekly schedule and associated work plan would lead to improved on time completion of workplan elements relating to customer requested work and system improvement projects. It would also support problem solving in unit/hourly costs.										
Intangibles	Employee engagement is improved by reducing human struggle, while being able to focus on priority and execution of work versus relying on workarounds and extra steps to meet daily scheduling needs.										
Intangibles	Increased accuracy in crew work schedules, resulting in increased on-time completion of electric system integrity and gas compliance work. Based on the reduction of scheduling errors, a projected increase of 10% in the First Time Quality scheduling metric.										
Intangibles	Increased accuracy of crew work schedules and First Time Quality are projected to lead to a 4% increase in Customer Satisfaction as measured by CXi										
Avoided Costs	Initial savings based on implementation at one Company service center yielded \$50,000 in savings from reduced truck rolls and reduced job delays through an enhanced quality control process . It is the intention of the Company to expand this statewide where further savings will be realized.										

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
Asset Refresh Programs
Projected Gas and Common Capital Expenditures
For the Projected Year 2025 and Test Year Ending October 31, 2026
For the Historical Year 2023 and Projected Year 2024

Case No.: U-21806
Exhibit No.: A-22 (SHB-7)
Page: 1 of 12
Witness: SHBaker
Date: December 2024

ARP-Collaboration

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Units	Avg. Unit Cost	Total 2025 Units	Total 2026 Units	Total 2025 Dollars	Total 2026 Dollars	Total Test Year Dollars	Gas Allocation Dollars
1	Conference room refresh - Small	\$15,000	2	1	\$30,000	\$15,000	\$17,500	\$5,500
2	Conference room refresh - Large	\$50,000	1	1	\$50,000	\$50,000	\$50,000	\$15,715
3	Conference room refresh - Auditorium	\$150,000	1	1	\$150,000	\$150,000	\$150,000	\$47,145
4	Digital Signage refresh - LCD Displays	\$1,650	21	20	\$34,650	\$33,000	\$33,775	\$10,458
5	Digital Signage refresh Phase 4	\$1,650	0	20	\$0	\$33,000	\$27,500	\$8,643
6	New Teams Rooms	\$10,000	2	2	\$20,000	\$20,000	\$20,000	\$6,286
7	PolyCom Refresh	\$5,500	20	0	\$110,000	\$0	\$18,333	\$5,762
8	PolyCom Refresh	\$7,500	0	14	\$0	\$105,000	\$87,500	\$27,501
9	PolyComm Video Conferencing Replacements	\$2,000	0	14	\$0	\$28,000	\$23,333	\$7,334
10	Replace existing VGA equipment with HDMI	\$2,000	1	1	\$2,000	\$2,000	\$2,000	\$629
11	Surface Hub 85" Gen 1 replacement	\$27,200	10	0	\$272,000	\$0	\$45,500	\$14,301
12	Surface Hub 85" Gen 1 replacement	\$28,700	0	10	\$0	\$287,000	\$239,167	\$75,170
13	Surface Hubs Gen 1 replacement 50"	\$12,500	2	0	\$25,000	\$0	\$4,167	\$1,310
14	Surface Hubs Gen 1 replacement 50"	\$13,340	0	10	\$0	\$133,400	\$111,167	\$34,940
15	Surface Hub Refresh 50"	\$12,500	4	0	\$50,000	\$0	\$8,333	\$2,619
16	Surface Hub Refresh 50"	\$13,340	0	5	\$0	\$66,700	\$55,583	\$17,470
17	Antennas	\$27,300	4	0	\$109,200	\$0	\$18,200	\$5,720
18	Surface Hub Refresh 85"	\$28,140	0	5	\$0	\$140,700	\$117,250	\$36,852
19	UPS 2000	\$980	18	9	\$17,640	\$9,820	\$10,290	\$3,234
20	Verint Servers/Software	\$418,260	0	1	\$0	\$418,260	\$348,550	\$109,549
21	Software, labor, contractor and overhead and other costs				\$314,345	\$263,662	\$272,109	\$85,524
22	Total Gas Allocation				\$1,185,835	\$1,754,542	\$1,659,757	\$521,662

	Units	Avg. Unit Cost	Total 2023 Units	Total 2024 Units	Total 2023 Dollars	Total 2024 Dollars	2023 Gas Allocation Dollars	2024 Gas Allocation Dollars
23	106 Hub to Microsoft Teams	\$9,269	0	1	\$0	\$9,269	\$0	\$2,813
24	136A display replacement	\$1,212	0	1	\$0	\$1,212	\$0	\$368
25	207 Hub to Microsoft Teams	\$9,269	0	1	\$0	\$9,269	\$0	\$2,813
26	207 Hub to Microsoft Teams	\$9,316	0	1	\$0	\$9,316	\$0	\$2,827
27	50" Hub	\$9,157	4	0	\$36,628	\$0	\$11,750	\$0
28	49" Display Monitor	\$3,499	0	1	\$0	\$3,499	\$0	\$1,062
29	55" Display	\$6,858	1	0	\$6,858	\$0	\$2,200	\$0
30	50" LED Public Display Monitor	\$2,346	0	1	\$0	\$10,422	\$0	\$5,268
31	55" LED Display	\$15,556	0	1	\$0	\$15,556	\$0	\$4,721
32	50" Surface Hubs	\$9,157	4	0	\$36,628	\$0	\$11,750	\$0
33	55" LED Public Display Monitor	\$1,092	0	1	\$0	\$1,092	\$0	\$331
34	85" Hub	\$16,679	2	0	\$33,358	\$0	\$10,701	\$0
35	85" Surface hub	\$16,679	2	0	\$33,358	\$0	\$10,701	\$0
36	5 Channels 70K Display	\$2,908	2	0	\$5,816	\$0	\$1,866	\$0
37	Cisco Phone System	\$943,441	1	0	\$943,441	\$0	\$302,656	\$0
38	Conference Center Room	\$3,722	1	0	\$3,722	\$0	\$1,194	\$0
39	Conference Center Room	\$9,852	1	0	\$9,852	\$0	\$3,161	\$0
40	Conference Room	\$26,253	1	0	\$26,253	\$0	\$8,422	\$0
41	Conference Room	\$7,323	0	1	\$0	\$7,323	\$0	\$2,223
42	Conference Room	\$7,343	0	1	\$0	\$7,343	\$0	\$2,223
43	Conference Room	\$7,029	0	1	\$0	\$7,029	\$0	\$2,133
44	Conference Room	\$7,029	0	1	\$0	\$7,029	\$0	\$2,133
45	Conference Room	\$8,383	0	1	\$0	\$8,383	\$0	\$2,547
46	Covert Display replacement with cart 32"	\$14,442	0	1	\$0	\$14,442	\$0	\$4,383
47	Crew Room	\$3,722	1	0	\$3,722	\$0	\$1,194	\$0
48	Crew Room	\$3,722	1	0	\$3,722	\$0	\$1,194	\$0
49	Digital signage	\$1,749	0	1	\$0	\$1,749	\$0	\$531
50	Digital Signage refresh Phase 4	\$4,293	1	0	\$4,293	\$0	\$1,377	\$0
51	Digital Signage 55"	\$1,052	7	0	\$7,364	\$0	\$2,362	\$0
52	Digital Signage E498	\$1,454	7	0	\$10,178	\$0	\$3,265	\$0
53	Digital Signage refresh - LCD Displays	\$1,454	7	0	\$10,178	\$0	\$3,265	\$0
54	Digital signage replacement	\$2,310	0	1	\$0	\$2,310	\$0	\$701
55	Display replacement	\$3,093	0	1	\$0	\$3,093	\$0	\$939
56	Display replacement	\$3,305	0	1	\$0	\$3,305	\$0	\$1,003
57	Display replacement - 49" TV	\$1,118	0	1	\$0	\$1,118	\$0	\$339
58	Eight (8) mid size conference rooms	\$41,107	1	0	\$41,107	\$0	\$13,187	\$0
59	Floor/Wall Mounts	\$21,000	1	0	\$21,000	\$0	\$6,737	\$0
60	Gas Control Hub replacements	\$35,327	0	1	\$0	\$35,327	\$0	\$10,722
61	Gen 1 Replacements	\$32,212	1	1	\$0	\$354,332	\$0	\$107,540
62	Hardware	\$2,815	1	0	\$2,815	\$0	\$903	\$0
63	Hub to Microsoft Teams	\$9,269	0	1	\$0	\$9,269	\$0	\$2,813
64	HUBS New installs	\$19,004	10	0	\$190,040	\$0	\$60,965	\$0
65	Hubs and stands	\$18,175	0	1	\$0	\$18,175	\$0	\$5,516
66	Hub and Stand	\$11,093	0	1	\$0	\$11,093	\$0	\$3,367
67	Hub replaced with Microsoft Teams Room	\$7,243	0	1	\$0	\$7,243	\$0	\$2,198
68	Hub replaced with Microsoft Teams Room	\$7,243	0	1	\$0	\$7,243	\$0	\$2,198
69	Hub replaced with Microsoft Teams Room	\$7,373	0	1	\$0	\$7,373	\$0	\$2,238
70	Hub replaced with Microsoft Teams Room	\$7,373	0	1	\$0	\$7,373	\$0	\$2,238
71	Hub Replacement	\$7,243	0	1	\$0	\$7,243	\$0	\$2,198
72	Hub Stand	\$2,699	0	9	\$0	\$24,291	\$0	\$7,372
73	Hub to Microsoft Teams	\$8,971	0	1	\$0	\$8,971	\$0	\$2,723
74	Hub to Microsoft Teams	\$9,269	0	1	\$0	\$9,269	\$0	\$2,813
75	Hub to Microsoft Teams	\$6,156	0	1	\$0	\$6,156	\$0	\$1,868
76	JVC	\$1,617	0	1	\$0	\$1,617	\$0	\$491
77	LCD Projector	\$2,695	0	1	\$0	\$2,695	\$0	\$818
78	LED Commercial TV	\$1,447	0	1	\$0	\$1,447	\$0	\$439
79	Microsoft Surface hub stand	\$2,676	0	1	\$0	\$2,676	\$0	\$812
80	Microsoft Surface hub	\$11,713	0	1	\$0	\$11,713	\$0	\$3,573
81	Microsoft Teams Room	\$6,767	0	1	\$0	\$6,767	\$0	\$2,054
82	Monitor Replacement	\$1,132	0	1	\$0	\$1,132	\$0	\$344
83	Microsoft Teams Room	\$9,151	0	1	\$0	\$9,151	\$0	\$2,777
84	Microsoft Teams Room	\$7,008	0	1	\$0	\$7,008	\$0	\$2,127
85	Microsoft Teams Room	\$8,501	0	1	\$0	\$8,501	\$0	\$2,580
86	Microsoft Teams Room 75"	\$3,452	0	2	\$0	\$6,904	\$0	\$2,095
87	New Hub Installation	\$2,093	1	0	\$2,093	\$0	\$671	\$0
88	NOCSOC	\$44,925	1	0	\$44,925	\$0	\$14,412	\$0
89	PolyCom UC Group 14	\$4,621	1	0	\$4,621	\$0	\$1,482	\$0
90	PolyCom UC Group 12 - equipment	\$4,621	1	0	\$4,621	\$0	\$1,482	\$0
91	PolyCom UC Group 18 - equipment	\$4,621	1	0	\$4,621	\$0	\$1,483	\$0
92	PolyCom UC Group 18 - equipment	\$4,621	1	0	\$4,621	\$0	\$1,483	\$0
93	PolyCom UC Group 18 - equipment	\$4,621	1	0	\$4,621	\$0	\$1,483	\$0
94	PolyCom UC Group 18 - equipment	\$4,621	1	0	\$4,621	\$0	\$1,483	\$0
95	PolyCom UC Group 18 - equipment	\$4,621	1	0	\$4,621	\$0	\$1,482	\$0
96	PolyCom UC Group 18 - equipment	\$4,621	1	0	\$4,621	\$0	\$1,482	\$0
97	PolyCom UC Group 4 - Equipment	\$4,899	1	0	\$4,899	\$0	\$1,571	\$0
98	PolyCom UC Group 5 - Equipment	\$14,696	1	0	\$14,696	\$0	\$4,714	\$0
99	PolyCom UC Group 6 - Equipment	\$4,354	1	0	\$4,354	\$0	\$1,397	\$0
100	PolyCom UC Group 8 - Equipment	\$4,354	1	0	\$4,354	\$0	\$1,397	\$0
101	PolyCom UC Group 8 - Equipment	\$4,354	1	0	\$4,354	\$0	\$1,397	\$0
102	PolyCom UC Group 8 - Equipment	\$4,354	1	0	\$4,354	\$0	\$1,397	\$0
103	PolyCom UC Group 8 - Equipment	\$4,354	1	0	\$4,354	\$0	\$1,397	\$0
104	PolyCom UC Group 8 - Equipment	\$4,354	1	0	\$4,354	\$0	\$1,397	\$0
105	PolyCom UC Group 8 - Equipment	\$4,354	1	0	\$4,354	\$0	\$1,397	\$0
106	PolyCom UC Group 8 - Equipment	\$4,354	1	0	\$4,354	\$0	\$1,397	\$0
107	PolyCom UC Group 8 - Equipment	\$4,354	1	0	\$4,354	\$0	\$1,397	\$0
108	Projector replacement	\$4,613	0	1	\$0	\$4,613	\$0	\$1,400
109	Projector replacement	\$2,408	0	1	\$0	\$2,408	\$0	\$731
110	Projector Replacement	\$10,551	0	1	\$0	\$10,551	\$0	\$3,202
111	Small Conference Room	\$7,494	1	0	\$7,494	\$0	\$2,404	\$0
112	Surface Hubs	\$2,100	0	11	\$0	\$23,100	\$0	\$7,011
113	Surface Hub 50"	\$30,663	1	0	\$30,663	\$0	\$9,837	\$0
114	Surface Hub 85"	\$24,435	1	0	\$24,435	\$0	\$7,839	\$0
115	Surface Hub 85"	\$27,368	0	1	\$0	\$27,368	\$0	\$8,306
116	Surface Hub	\$12,186	0	1	\$0	\$12,186	\$0	\$3,698
117	UC Group 2 equipment	\$9,434	1	0	\$9,434	\$0	\$3,026	\$0
118	UC System	\$6,314	0	1	\$0	\$6,314	\$0	\$1,916
119	UPS	\$4,027	1	0	\$4,027	\$0	\$1,292	\$0
120	Wellness Room	\$3,722	1	0	\$3,722	\$0	\$1,194	\$0
121	Software, labor, contractor and overhead and other costs				\$170,512	\$338,192	\$54,700	\$102,641
122	Total Gas Allocation				\$1,839,809	\$1,110,108	\$590,211	\$336,918

ARP-CORE Network Upgrade

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Units	Avg. Unit Cost	Total 2025 Units	Total 2026 Units	Total 2025 Dollars	Total 2026 Dollars	Total Test Year Dollars	Gas Allocation Dollars
1	Core Switch A	\$80,000	0	4	\$0	\$320,000	\$266,667	\$83,813
2	Core Switch C	\$40,000	0	4	\$0	\$160,000	\$133,333	\$41,907
3	Core Switch E	\$1,000	0	20	\$0	\$20,000	\$16,667	\$5,238
4	Software, labor, contractor and overhead and other costs				\$0	\$39,800	\$33,167	\$10,424
5	Total Gas Allocation				\$0	\$539,800	\$449,833	\$141,383

	Units	Avg. Unit Cost	Total 2023 Units	Total 2024 Units	Total 2023 Dollars	Total 2024 Dollars	2023 Gas Allocation Dollars	2024 Gas Allocation Dollars
6	Software, labor, contractor and overhead and other costs				\$26,320	\$0	\$8,444	\$0
7	Total Gas Allocation				\$26,320	\$0	\$8,444	\$0

ARP-Cyber Security

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Units	Avg. Unit Cost	Total 2025 Units	Total 2026 Units	Total 2025 Dollars	Total 2026 Dollars	Total Test Year Dollars	Gas Allocation Dollars
1	Firewalls Replacement	\$9,500	39	29	\$370,500	\$275,500	\$291,333	\$140,510
2	Sensor Replacement	\$14,000	0	7	\$0	\$98,000	\$81,667	\$39,388
3	Software, labor, contractor and overhead and other costs				\$80,000	\$80,000	\$80,000	\$38,584
4	Total Gas Allocation				\$450,500	\$453,500	\$453,000	\$218,482

	Units	Avg. Unit Cost	Total 2023 Units	Total 2024 Units	Total 2023 Dollars	Total 2024 Dollars	2023 Gas Allocation Dollars	2024 Gas Allocation Dollars
5	Active Fiber Cable	\$482	0	2	\$0	\$964	\$0	\$447
6	Badge Printer Replacement	\$10,000	0	1	\$0	\$10,000	\$0	\$4,639
7	Firewalls Replacement	\$9,500	0	20	\$0	\$190,000	\$0	\$88,141
8	Hardware Replacement	\$3,005	0	1	\$0	\$3,005	\$0	\$1,394
9	Monthly Sub License	\$7,264	0	2	\$0	\$14,529	\$0	\$6,740
10	Multimode SR	\$285	0	104	\$0	\$29,616	\$0	\$13,739
11	Networks	\$1,099	0	46	\$0	\$50,572	\$0	\$23,460
12	Networks	\$108	0	46	\$0	\$4,986	\$0	\$2,313
13	Networks	\$163	0	46	\$0	\$7,479	\$0	\$3,470
14	Networks	\$295	0	1	\$0	\$295	\$0	\$137
15	Networks	\$295	0	1	\$0	\$295	\$0	\$137
16	QRadar	\$28,501	0	1	\$0	\$28,501	\$0	\$13,222
17	Software License	\$3,665	0	2	\$0	\$7,330	\$0	\$3,400
18	Software License	\$40,606	0	2	\$0	\$81,211	\$0	\$37,674
19	Software, labor, contractor and overhead and other costs				\$0	\$39,419	\$0	\$18,286
20	Total Gas Allocation				\$0	\$468,202	\$0	\$217,199

ARP-Field Device Asset Mgmt

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Units	Avg. Unit Cost	Total 2025 Units	Total 2026 Units	Total 2025 Dollars	Total 2026 Dollars	Total Test Year Dollars	Gas Allocation Dollars
	Replacements							
1	Field Devices CF33 w/acce	\$4,912	248	1294	\$1,218,288	\$6,356,710	\$5,500,307	\$1,728,746
2	Field Devices CF55 w/acces	\$4,003	290	31	\$1,160,945	\$124,101	\$296,908	\$93,318
3	CF33 accessories				\$91		\$76	\$24
	New Purchases							
4	Field Devices CF33	\$4,912	170	170	\$835,117	\$835,117	\$835,117	\$262,477
5	Field Devices CF55	\$4,003	30	30	\$120,098	\$120,098	\$120,098	\$37,747
6	Accessories				\$42,041	\$44,786	\$44,329	\$13,932
7	Software, labor, contractor and overhead and other costs				\$80,556	\$197,568	\$178,066	\$55,966
8	Total Gas Allocation				\$3,457,044	\$7,678,471	\$6,974,900	\$2,192,211

	Units	Avg. Unit Cost	Total 2023 Units	Total 2024 Units	Total 2023 Dollars	Total 2024 Dollars	2023 Gas Allocation Dollars	2024 Gas Allocation Dollars
	Replacements							
9	Field Devices CF33 w/acce	\$4,474	524	0	\$2,344,418	\$0	\$752,089	\$0
10	Field Devices CF33 w/acce	\$4,912	0	591	\$0	\$2,903,258	\$0	\$881,139
11	Field Devices CF55 w/acces	\$0	0	0	\$0	\$0	\$0	\$0
12	Field Devices CF55 w/acces	\$4,003	0	38	\$0	\$152,124	\$0	\$46,170
13	Field Devices Getac A140	\$4,718	191	0	\$901,149	\$0	\$289,089	\$0
14	Field Devices Getac A140	\$4,621	0	49	\$0	\$226,406	\$0	\$68,714
15	CF33 accessories				\$10,655	\$26,434	\$3,418	\$8,023
	New Purchases							
16	Field Devices CF33	\$4,912	0	86	\$0	\$422,471	\$0	\$128,220
17	Field Devices CF55	\$4,003	0	20	\$0	\$80,065	\$0	\$24,300
18	Field Devices Getac A140	\$4,621	0	1	\$0	\$4,621	\$0	\$1,402
19	Accessories				\$0	\$32,846	\$0	\$9,969
20	Software, labor, contractor and overhead and other costs				\$17,618	\$95,647	\$5,652	\$29,029
21	Total Gas Allocation				\$3,273,840	\$3,943,872	\$1,050,248	\$1,196,965

ARP-Infoblox

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Units	Avg. Unit Cost	Total 2025 Units	Total 2026 Units	Total 2025 Dollars	Total 2026 Dollars	Total Test Year Dollars	Gas Allocation Dollars
1	Network Manager A	\$41,330	4	1	\$165,321	\$41,330	\$61,995	\$29,900
2	Network Manager B	\$2,812	4	6	\$11,250	\$16,874	\$15,937	\$7,686
3	Network Manager C	\$1,419	4	4	\$5,676	\$5,676	\$5,676	\$2,737
4	Network Manager D	\$28,736	8	0	\$229,888	\$0	\$38,315	\$18,479
5	Network Manager D	\$28,260	0	1	\$0	\$28,260	\$23,550	\$11,358
6	Network Manager E	\$2,812	8	1	\$22,499	\$2,812	\$6,093	\$2,939
7	Network Manager F	\$1,419	8	5	\$11,351	\$7,094	\$7,804	\$3,764
8	Network Manager G	\$13,336	4	1	\$53,345	\$13,336	\$20,004	\$9,648
9	Network Manager H	\$1,522	5	1	\$7,612	\$1,522	\$2,537	\$1,224
10	Network Manager I	\$40,450	1	0	\$40,450	\$0	\$6,742	\$3,252
11	Network Manager J	\$100,162	1	0	\$100,162	\$0	\$16,694	\$8,051
12	Network Manager K	\$1,522	8	5	\$12,180	\$7,612	\$8,374	\$4,039
13	Network Manager L	\$2,812	2	3	\$5,625	\$8,437	\$7,968	\$3,843
14	Network Manager M	\$221,926	1	0	\$221,926	\$0	\$36,988	\$17,839
15	Network Manager N	\$1,522	3	1	\$4,567	\$1,522	\$2,030	\$979
16	Network Manager O	\$2,812	1	1	\$2,812	\$2,812	\$2,812	\$1,356
17	Antenas				\$83,550	\$60,150	\$64,050	\$30,891
18	Total Gas Allocation				\$978,213	\$197,440	\$327,569	\$157,986

ARP-Local Area Network

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Units	Avg. Unit Cost	Total 2025 Units	Total 2026 Units	Total 2025 Dollars	Total 2026 Dollars	Total Test Year Dollars	Gas Allocation Dollars
1	LAN Switch A	\$20,512	2	8	\$41,024	\$164,096	\$143,584	\$69,251
2	LAN Switch B	\$8,132	7	4	\$56,924	\$32,528	\$36,594	\$17,649
3	LAN Switch C	\$6,743	4	8	\$26,971	\$53,942	\$49,446	\$23,848
4	LAN Switch D	\$1,290	5	14	\$6,448	\$18,055	\$16,120	\$7,775
5	LAN Switch E	\$5,631	4	4	\$22,523	\$22,523	\$22,523	\$10,863
6	LAN Switch F	\$996	5	20	\$4,980	\$19,920	\$17,430	\$8,406
7	LAN Switch G	\$1,474	8	8	\$11,792	\$11,792	\$11,792	\$5,687
8	LAN Switch H	\$12,270	4	4	\$49,081	\$49,081	\$49,081	\$23,672
9	LAN Switch I	\$1,006	0	2	\$0	\$2,013	\$1,677	\$809
10	Wireless Access Points	\$1,052	5	1	\$5,258	\$1,052	\$1,753	\$845
11	Software, labor, contractor and overhead and other costs				\$95,435	\$136,110	\$129,331	\$62,376
12	Total Gas Allocation				\$320,435	\$511,110	\$479,331	\$231,181

	Units	Avg. Unit Cost	Total 2023 Units	Total 2024 Units	Total 2023 Dollars	Total 2024 Dollars	2023 Gas Allocation Dollars	2024 Gas Allocation Dollars
13	F5	\$90,113	0	2	\$0	\$180,226	\$0	\$83,607
14	LAN Switch A	\$6,415	40	0	\$256,609	\$0	\$112,703	\$0
15	LAN Switch B	\$2,873	520	0	\$1,493,726	\$0	\$656,044	\$0
16	LAN Switch C	\$2,533	150	0	\$380,010	\$0	\$166,900	\$0
17	LAN Switch D	\$1,215	290	0	\$352,452	\$0	\$154,797	\$0
18	LAN Switch E	\$1,513	90	0	\$136,147	\$0	\$59,796	\$0
19	LAN Switch F	\$174,151	1	0	\$174,151	\$0	\$76,487	\$0
20	MX Router	\$26,986	0	3	\$0	\$80,958	\$0	\$37,556
21	Network Manager A - E	\$7,900	0	23	\$0	\$181,700	\$0	\$84,291
22	Network Manager K - O	\$54,000	0	1	\$0	\$54,000	\$0	\$25,051
23	Network Server	\$47,870	0	3	\$0	\$143,610	\$0	\$66,621
24	Optic Cables	\$61,542	1	0	\$61,542	\$0	\$27,029	\$0
25	Plixer	\$8,571	0	7	\$0	\$59,997	\$0	\$27,833
26	Power Supply Units	\$344	0	55	\$0	\$18,920	\$0	\$8,777
27	Wireless Access Points	\$1,559	764	0	\$1,191,076	\$0	\$523,121	\$0
28	Wireless Access Points	\$1,594	0	395	\$0	\$629,476	\$0	\$292,014
29	Wireless Controllers	\$3,332	0	161	\$0	\$536,452	\$0	\$248,860
30	Software, labor, contractor and overhead and other costs				\$800,034	\$1,389,399	\$351,375	\$644,542
31	Total Gas Allocation				\$4,845,746	\$3,274,738	\$2,128,252	\$1,519,151

ARP-OT Support Gas

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Units	Avg. Unit Cost	Total 2025 Units	Total 2026 Units	Total 2025 Dollars	Total 2026 Dollars	Total Test Year Dollars	Gas Allocation Dollars
1	Cellular Routers	\$1,500	0	10	\$0	\$15,000	\$12,500	\$12,500
2	Field Switches (BRS32)	\$1,568	0	30	\$0	\$47,025	\$39,188	\$39,188
3	Field Switches (GRS 1042)	\$528	0	3	\$0	\$1,584	\$1,320	\$1,320
4	Firewalls	\$150,000	1	0	\$150,000	\$0	\$25,000	\$25,000
5	Firewalls	\$22,440	0	20	\$0	\$448,800	\$374,000	\$374,000
6	Head-End Devices	\$5,000	0	4	\$0	\$20,000	\$16,667	\$16,667
7	Hyperconverged Server	\$375,000	1	0	\$375,000	\$0	\$62,500	\$62,500
8	Hyperconverged Server	\$28,875	0	8	\$0	\$231,000	\$192,500	\$192,500
9	Hyperconverged Server	\$67,000	0	18	\$0	\$1,206,000	\$1,005,000	\$1,005,000
10	Industrial Panel PCs	\$6,500	0	17	\$0	\$110,500	\$92,083	\$92,083
11	Modems	\$93,750	1	0	\$93,750	\$0	\$15,625	\$15,625
12	Routers	\$93,750	1	0	\$93,750	\$0	\$15,625	\$15,625
13	Servers	\$37,500	1	0	\$37,500	\$0	\$6,250	\$6,250
14	Switches	\$112,500	1	0	\$112,500	\$0	\$18,750	\$18,750
15	Switches	\$4,455	0	26	\$0	\$115,830	\$96,525	\$96,525
16	Thin Clients & Monitors	\$1,200	0	16	\$0	\$19,200	\$16,000	\$16,000
17	Antenas				\$116,678	\$550,905	\$478,534	\$478,534
18	Total Gas Allocation				\$979,178	\$2,765,844	\$2,468,066	\$2,468,066

	Units	Avg. Unit Cost	Total 2023 Units	Total 2024 Units	Total 2023 Dollars	Total 2024 Dollars	2023 Gas Allocation Dollars	2024 Gas Allocation Dollars
19	Cisco C8500	\$36,677	0	2	\$0	\$73,353	\$0	\$73,353
20	Cisco Connected Grid 2G/3G/4G LTE GRWIC	\$46,009	1	0	\$46,009	\$0	\$46,009	\$0
21	DataCom Tap	\$2,064	0	5	\$0	\$10,322	\$0	\$10,322
22	F5 Hardware	\$5,881	0	10	\$0	\$58,813	\$0	\$58,813
23	Firewalls	\$11,217	0	27	\$0	\$302,870	\$0	\$302,870
24	Firewalls	\$53,074	0	2	\$0	\$106,148	\$0	\$106,148
25	GPC Clocks	\$1,427	0	2	\$0	\$2,853	\$0	\$2,853
26	Hyper-Converged Solution	\$34,366	0	4	\$0	\$137,463	\$0	\$137,463
27	Juniper Switches PRM - 2024 ARP PRM - NTXN240	\$12,665	0	2	\$0	\$25,330	\$0	\$25,330
28	Juniper Switches GRM - 2024 ARP GRM - NTXN214	\$12,953	0	2	\$0	\$25,907	\$0	\$25,907
29	Juniper Switches prm - NWQV081	\$6,491	0	6	\$0	\$38,944	\$0	\$38,944
30	Juniper Switches grm - NWQV118	\$6,491	0	6	\$0	\$38,944	\$0	\$38,944
31	Master Terminal Unit	\$2,872	0	35	\$0	\$100,515	\$0	\$100,515
32	Network Adapters	\$196	0	20	\$0	\$3,929	\$0	\$3,929
33	Wyse Thin Clients	\$525	0	10	\$0	\$5,250	\$0	\$5,250
34	Software, labor, contractor and overhead and other costs				\$198,988	\$102,587	\$198,988	\$102,587
35	Total Gas Allocation				\$244,997	\$1,033,227	\$244,997	\$1,033,227

ARP-Physical Security

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Units	Avg. Unit Cost	Total 2025 Units	Total 2026 Units	Total 2025 Dollars	Total 2026 Dollars	Total Test Year Dollars	Gas Allocation Dollars
1	Cabling/Misc Equipment	\$10,000	12	13	\$120,000	\$130,000	\$128,333	\$40,335
2	Cameras	\$3,000	117	0	\$351,000	\$0	\$58,500	\$18,387
3	Cameras	\$3,500	0	163	\$0	\$570,500	\$475,417	\$149,423
4	Lift Charge	\$5,000	12	13	\$60,000	\$65,000	\$64,167	\$20,168
5	Logistics & Operation Expense	\$4,000	12	13	\$48,000	\$52,000	\$51,333	\$16,134
6	NVR/Monitor	\$35,000	12	0	\$420,000	\$0	\$70,000	\$22,001
7	NVR/Monitor	\$37,000	0	13	\$0	\$481,000	\$400,833	\$125,982
8	Software, labor, contractor and overhead and other costs				\$903,740	\$1,174,862	\$1,129,675	\$355,057
9	Total Gas Allocation				\$1,902,740	\$2,473,362	\$2,378,258	\$747,487

	Units	Avg. Unit Cost	Total 2023 Units	Total 2024 Units	Total 2023 Dollars	Total 2024 Dollars	2023 Gas Allocation Dollars	2024 Gas Allocation Dollars
10	3rd Party Vendor	\$29,637	0	1	\$0	\$29,637	\$0	\$8,995
11	Cabling/Misc Equipment	\$10,216	0	6	\$0	\$61,296	\$0	\$18,603
12	Cameras	\$2,859	159	0	\$454,581	\$0	\$145,830	\$0
13	Cameras	\$1,175	0	171	\$0	\$200,944	\$0	\$60,986
14	Card Access (SIO & SCP)	\$14,291	1	0	\$14,291	\$0	\$4,585	\$0
15	Card Access (SIO & SCP)	\$1,481	0	92	\$0	\$136,233	\$0	\$41,347
16	Intercom	\$1,607	6	0	\$9,641	\$0	\$3,093	\$0
17	Lift Charge	\$27,960	1	0	\$27,960	\$0	\$8,970	\$0
18	Lift Charge	\$3,643	0	4	\$0	\$14,573	\$0	\$4,423
19	Logistics & Operation Expense	\$2,470	0	3	\$0	\$7,409	\$0	\$2,249
20	NVR/Monitor	\$19,822	10	0	\$198,224	\$0	\$63,590	\$0
21	NVR/Monitor	\$41,387	0	5	\$0	\$206,936	\$0	\$62,805
22	Accessories				\$93,838	\$0	\$30,103	\$0
23	Software, labor, contractor and overhead and other costs				\$639,422	\$894,675	\$205,127	\$271,534
24	Total Gas Allocation				\$1,437,957	\$1,551,703	\$461,297	\$470,942

ARP-Printer Asset Management

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Units	Avg. Unit Cost	Total 2025 Units	Total 2026 Units	Total 2025 Dollars	Total 2026 Dollars	Total Test Year Dollars	Gas Allocation Dollars
1	Fax Board	\$541	2	0	\$1,081	\$0	\$180	\$57
2	IM C300	\$1,767	75	3	\$132,525	\$5,301	\$26,505	\$8,331
3	IM C2500	\$5,235	16	2	\$83,765	\$10,471	\$22,686	\$7,130
4	IM C3010	\$5,536	74	0	\$409,664	\$0	\$68,277	\$21,460
5	IM C3510	\$6,137	40	2	\$245,480	\$12,274	\$51,142	\$16,074
6	IM C6010	\$7,243	37	0	\$267,990	\$0	\$44,665	\$14,038
7	MPC W2201	\$8,204	49	8	\$402,016	\$65,635	\$121,699	\$38,250
8	MP W6700 Plotter	\$10,007	1	0	\$10,007	\$0	\$1,668	\$524
9	Ricoh PRO C5300	\$34,426	0	1	\$0	\$34,426	\$28,689	\$9,017
10	SPC 8200	\$6,807	2	0	\$13,615	\$0	\$2,269	\$713
11	Accessories				\$2,352	\$527	\$831	\$261
12	Software, labor, contractor and overhead and other costs				\$43,365	\$2,205	\$9,065	\$2,849
13	Total Gas Allocation				\$1,611,861	\$130,839	\$377,676	\$118,704

	Units	Avg. Unit Cost	Total 2023 Units	Total 2024 Units	Total 2023 Dollars	Total 2024 Dollars	2023 Gas Allocation Dollars	2024 Gas Allocation Dollars
14	Fax Board	\$505	6	0	\$3,030	\$0	\$972	\$0
15	IM C300	\$1,767	20	71	\$35,340	\$125,457	\$11,337	\$38,076
16	IM C2500	\$5,235	6	14	\$31,412	\$73,295	\$10,077	\$22,245
17	IM C3010	\$5,536	29	0	\$160,555	\$0	\$51,506	\$0
18	IM C3010	\$5,536	0	8	\$0	\$44,288	\$0	\$13,441
19	IM C3510	\$6,137	2	74	\$12,274	\$454,138	\$3,937	\$137,831
20	IM C6010	\$7,243	7	27	\$50,701	\$195,560	\$16,265	\$59,353
21	MPC W2201	\$8,204	5	0	\$41,020	\$0	\$13,159	\$0
22	MPC W2201	\$8,404	0	12	\$0	\$100,848	\$0	\$30,607
23	Software, labor, contractor and overhead and other costs				(\$1,640)	\$43,693	(\$526)	\$13,261
24	Total Gas Allocation				\$332,691	\$1,037,279	\$106,727	\$314,814

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Asset Refresh Programs

Projected Gas and Common Capital Expenditures

For the Projected Year 2025 and Test Year Ending October 31, 2026

For the Historical Year 2023 and Projected Year 2024

Case No.: U-21806

Exhibit No.: A-22 (SHB-7)

Page: 10 of 12

Witness: SHBaker

Date: December 2024

ARP-Radio

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Units	Avg. Unit Cost	Total 2025 Units	Total 2026 Units	Total 2025 Dollars	Total 2026 Dollars	Total Test Year Dollars	Gas Allocation Dollars
1	800Mhz Mobile Front Mount	\$2,750	450	450	\$1,237,500	\$1,237,500	\$1,237,500	\$596,846
2	Bi-Directional Amp	\$1,600	10	10	\$16,000	\$16,000	\$16,000	\$7,717
3	Conventional Repeaters Hardware	\$30,000	0	1	\$0	\$30,000	\$25,000	\$12,058
4	Havis Boxes	\$3,419	150	165	\$512,850	\$564,135	\$555,588	\$267,960
5	Modem	\$2,500	0	10	\$0	\$25,000	\$20,833	\$10,048
6	Software, labor, contractor and overhead and other costs				\$622,577	\$635,681	\$633,497	\$305,536
7	Total Gas Allocation				\$2,388,927	\$2,508,316	\$2,488,418	\$1,200,164

	Units	Avg. Unit Cost	Total 2023 Units	Total 2024 Units	Total 2023 Dollars	Total 2024 Dollars	2023 Gas Allocation Dollars	2024 Gas Allocation Dollars
8	210lb Break Strength Polyline	\$91	0	1	\$0	\$91	\$0	\$42
9	800Mhz Mobile Front Mount	\$620	0	100	\$0	\$61,997	\$0	\$28,760
10	800Mhz Portable Radios	\$1,909	0	100	\$0	\$190,894	\$0	\$88,556
11	Antanas	\$43	0	50	\$0	\$2,139	\$0	\$992
12	Battery Conditioners	\$4,393	0	1	\$0	\$4,393	\$0	\$2,038
13	Bi-Directional Amp	\$14,286	0	1	\$0	\$14,286	\$0	\$6,627
14	Bi-Directional Amp	\$29,860	1	0	\$29,860	\$0	\$13,115	\$0
15	Bi-Directional Amp	\$12,745	0	1	\$0	\$12,745	\$0	\$5,913
16	Bi-Directional Amp	\$1,606	0	1	\$0	\$1,606	\$0	\$745
17	Bi-Directional Amp	\$14,532	0	1	\$0	\$14,532	\$0	\$6,741
18	Bi-Directional Amp	\$83,530	1	0	\$83,530	\$0	\$36,686	\$0
19	Bi-Directional Amp	\$2,500	0	0	\$0	\$0	\$0	\$0
20	Bi-Directional Amp	\$1,590	0	10	\$0	\$15,900	\$0	\$7,376
21	Bi-Directional Amp	\$1,697	1	0	\$1,697	\$0	\$745	\$0
22	Bi-Directional Amp	\$11,156	0	1	\$0	\$11,156	\$0	\$5,175
23	Control Stations	\$2,174	0	250	\$0	\$543,455	\$0	\$252,109
24	Cutoff Saw Tool	\$175	0	1	\$0	\$175	\$0	\$81
25	Distributed Antenna System	\$574,142	1	0	\$574,142	\$0	\$252,163	\$0
26	Drone and Accessories	\$6,246	0	1	\$0	\$6,246	\$0	\$2,898
27	Havis Boxes	\$42,400	0	1	\$0	\$42,400	\$0	\$19,669
28	Havis Boxes	\$35,000	0	0	\$0	\$0	\$0	\$0
29	Havis Plates, Fillers	\$10	0	60	\$0	\$585	\$0	\$271
30	Installation Accessories	\$585	0	100	\$0	\$58,500	\$0	\$27,138
31	Lighting Refresh	\$64,940	0	1	\$0	\$64,940	\$0	\$30,126
32	Met Tower	\$21,200	0	2	\$0	\$42,400	\$0	\$19,669
33	Met Tower	\$63,000	0	3	\$0	\$189,000	\$0	\$87,677
34	Miscellaneous Parts	\$1,514	0	2	\$0	\$3,028	\$0	\$1,405
35	Plenum Air Dielectric Kit	\$18,842	0	1	\$0	\$18,842	\$0	\$8,741
36	Plenum Air Dielectric Kit	\$12,258	0	1	\$0	\$12,258	\$0	\$5,686
37	Power Supply	\$242	0	1	\$0	\$242	\$0	\$112
38	Programming Accessories	\$314	0	10	\$0	\$3,138	\$0	\$1,456
39	Radio Activation	\$250	0	350	\$0	\$87,500	\$0	\$40,591
40	Radio Network Refresh Hardware	\$5,168	0	1	\$0	\$5,168	\$0	\$2,397
41	Scanners	\$3,813	1	0	\$3,813	\$0	\$1,675	\$0
42	Scanners	\$4,525	0	4	\$0	\$18,099	\$0	\$8,396
43	Repeater	\$3,376	0	1	\$0	\$3,376	\$0	\$1,566
44	Wallmount Accessories	\$20,910	0	1	\$0	\$20,910	\$0	\$9,700
45	Watt Meter	\$1,376	0	7	\$0	\$9,632	\$0	\$4,468
46	Software, labor, contractor and overhead and other costs				\$41,817	(\$124,301)	\$18,366	(\$57,663)
47	Total Gas Allocation				\$734,859	\$1,335,332	\$322,750	\$619,460

ARP-Server and Storage

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Units	Avg. Unit Cost	Total 2025 Units	Total 2026 Units	Total 2025 Dollars	Total 2026 Dollars	Total Test Year Dollars	Gas Allocation Dollars
1	Hyperscale Expansion	\$106,503	1	0	\$106,503	\$0	\$17,751	\$5,579
2	Nutanix xc640	\$137,109	8	14	\$1,096,874	\$1,919,530	\$1,782,420	\$560,215
3	Labor, contractor and overhead and other costs				\$536,200	\$383,000	\$408,534	\$128,402
4	Total Gas Allocation				\$1,739,577	\$2,302,530	\$2,208,705	\$694,196

	Units	Avg. Unit Cost	Total 2023 Units	Total 2024 Units	Total 2023 Dollars	Total 2024 Dollars	2023 Gas Allocation Dollars	2024 Gas Allocation Dollars
5	Connectrix SAN Switches	\$199,977	1	0	\$199,977	\$0	\$64,153	\$0
6	Hyperscale Expansion	\$494,608	1	0	\$494,608	\$0	\$158,670	\$0
7	Network	\$38,928	1	0	\$38,928	\$0	\$12,488	\$0
8	Nutanix xc640	\$328,014	1	0	\$328,014	\$0	\$105,227	\$0
9	Nutanix xc740xd	\$32,946	0	20	\$0	\$658,929	\$0	\$199,985
10	Power Distribution Unit	\$15,525	1	0	\$15,525	\$0	\$4,980	\$0
11	Antenas	\$168,274	1	0	\$168,274	\$0	\$53,982	\$0
12	SFP	\$51	0	40	\$0	\$2,040	\$0	\$619
13	Labor, contractor and overhead and other costs				\$1,021,880	\$113,144	\$327,819	\$34,339
14	Total Gas Allocation				\$2,267,206	\$774,113	\$727,320	\$234,943

ARP-Workstation Asset Mgmt

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	Units	Avg. Unit Cost	Total 2025 Units	Total 2026 Units	Total 2025 Dollars	Total 2026 Dollars	Total Test Year Dollars	Gas Allocation Dollars
	Replacements							
1	Desktops	\$1,378	35	95	\$48,230	\$130,910	\$117,130	\$36,814
2	HP Desktop Bundled	\$4,049	67	41	\$271,296	\$166,017	\$183,564	\$57,694
3	Laptop	\$1,908	2533	1787	\$4,832,964	\$3,409,596	\$3,646,824	\$1,146,197
4	Laptop 15"	\$3,037	654	273	\$1,986,133	\$829,074	\$1,021,917	\$321,188
5	RT Mount Device	\$8,480	20	15	\$169,600	\$127,200	\$134,267	\$42,200
6	Tablets	\$2,644	67	4	\$177,171	\$10,577	\$38,343	\$12,051
7	Accessories				\$51,443	\$97,133	\$89,518	\$28,135
	New Purchases							
8	24" Monitors	\$233	120	120	\$27,984	\$27,984	\$27,984	\$8,795
9	Apple Tablets	\$1,025	1	1	\$1,025	\$1,025	\$1,025	\$322
10	Desktop (MT)	\$1,378	14	14	\$19,292	\$19,292	\$19,292	\$6,063
11	SFF Desktop	\$1,246	8	8	\$9,964	\$9,964	\$9,964	\$3,132
12	HP Desktop	\$4,049	5	5	\$20,246	\$20,246	\$20,246	\$6,363
13	HP laptop (15"/16")	\$3,037	60	60	\$182,214	\$182,214	\$182,214	\$57,270
14	Laptop (14")	\$1,908	302	302	\$576,216	\$576,216	\$576,216	\$181,105
15	Antenas	\$1,942	3	3	\$5,827	\$5,827	\$5,827	\$1,831
16	Teams Monitors	\$323	280	280	\$90,524	\$90,524	\$90,524	\$28,452
17	Accessories				\$64,000	\$64,000	\$64,000	\$20,115
18	Shipping and Handling/other fees				\$2,708	\$2,708	\$2,708	\$851
19	Software, labor, contractor and overhead and other costs				\$445,632	\$299,771	\$324,081	\$101,859
20	Total Gas Allocation				\$8,982,469	\$6,070,278	\$6,555,643	\$2,060,439

	Units	Avg. Unit Cost	Total 2023 Units	Total 2024 Units	Total 2023 Dollars	Total 2024 Dollars	2023 Gas Allocation Dollars	2024 Gas Allocation Dollars
	Replacements							
21	Desktops	\$1,314	437	0	\$574,332	\$0	\$184,246	\$0
22	Desktops	\$1,484	0	160	\$0	\$237,440	\$0	\$72,063
23	SFF Desktop	\$1,251	10	0	\$12,508	\$0	\$4,013	\$0
24	SFF Desktop	\$1,385	0	116	\$0	\$160,668	\$0	\$48,763
25	HP Desktop Bundled	\$4,419	77	0	\$340,277	\$0	\$109,161	\$0
26	HP Desktop Bundled	\$4,505	0	75	\$0	\$337,875	\$0	\$102,545
27	HP Desktops OT	\$6,042	0	65	\$0	\$392,730	\$0	\$119,194
28	Laptop	\$1,764	1253	0	\$2,209,853	\$0	\$708,921	\$0
29	Laptop	\$1,813	0	835	\$0	\$1,513,521	\$0	\$459,354
30	Laptop	\$2,740	189	0	\$517,828	\$0	\$166,119	\$0
31	HP Laptop bundled	\$3,577	77	0	\$275,441	\$0	\$88,362	\$0
32	HP Laptop bundled	\$3,248	0	518	\$0	\$1,682,635	\$0	\$510,680
33	Macs	\$2,828	0	3	\$0	\$8,483	\$0	\$2,575
34	Rugged Devices	\$4,152	104	0	\$431,775	\$0	\$138,513	\$0
35	RT Mount Device	\$8,480	0	51	\$0	\$432,480	\$0	\$131,258
36	Surface Pro Laptops	\$2,257	0	30	\$0	\$67,709	\$0	\$20,550
37	Tablets	\$2,247	0	16	\$0	\$35,952	\$0	\$10,911
38	Tablets	\$1,825	6	0	\$10,952	\$0	\$3,513	\$0
39	Teams Monitors	\$323	0	105	\$0	\$33,947	\$0	\$10,303
40	Accessories				\$267,836	\$200,079	\$85,922	\$60,724
	New Purchases							
41	24" Monitors	\$233	79	0	\$18,423	\$0	\$5,910	\$0
42	Apple Macbook	\$2,833	2	0	\$5,667	\$0	\$1,818	\$0
43	Apple Tablets	\$1,025	0	1	\$0	\$1,025	\$0	\$311
44	Desktop	\$1,314	11	0	\$14,457	\$0	\$4,638	\$0
45	Desktop	\$1,484	0	2	\$0	\$2,968	\$0	\$901
46	HP Desktop	\$4,419	1	0	\$4,419	\$0	\$1,418	\$0
47	HP Desktop	\$4,505	0	4	\$0	\$18,020	\$0	\$5,469
48	HP laptop	\$2,740	23	0	\$63,016	\$0	\$20,216	\$0
49	HP laptop	\$3,248	0	30	\$0	\$97,450	\$0	\$29,576
50	Laptop	\$1,764	70	0	\$123,456	\$0	\$39,605	\$0
51	Laptop	\$1,813	0	145	\$0	\$262,827	\$0	\$79,768
52	Rugged Devices - Getac	\$4,718	45	0	\$212,313	\$0	\$68,110	\$0
53	Rugged Devices - Panasonic CF33	\$4,152	113	0	\$469,140	\$0	\$150,500	\$0
54	Semi-Rugged Devices - Panasonic FZ55	\$4,003	14	0	\$56,046	\$0	\$17,979	\$0
55	SFF Desktop	\$1,251	3	0	\$3,752	\$0	\$1,204	\$0
56	SFF Desktop	\$1,385	0	10	\$0	\$13,851	\$0	\$4,204
57	Surface Pro Tablets	\$2,008	2	0	\$4,015	\$0	\$1,288	\$0
58	Surface Pro Tablets	\$1,942	0	5	\$0	\$9,712	\$0	\$2,948
59	Teams Monitors	\$324	92	0	\$29,841	\$0	\$9,573	\$0
60	Teams Monitors	\$323	0	145	\$0	\$46,879	\$0	\$14,228
61	Accessories				\$181,343	\$78,504	\$58,175	\$23,826
62	Shipping and Handling/other fees				\$12,942	\$8,765	\$4,152	\$2,660
63	Software, labor, contractor and overhead and other costs				\$312,824	\$273,429	\$100,354	\$82,986
64	Total Gas Allocation				\$6,152,454	\$5,916,948	\$1,973,707	\$1,795,794

EXHIBIT A-23 (SHB-8)
IS CONFIDENTIAL AND
BEING FILED UNDER SEAL
WITH THE MPSC

*2019 actuals based on 6 months of actuals and 6 months of forecast data, as detailed actuals were not provided in a filing to reference.
 **2024 projected based on 7 months of actuals and 5 months of forecast data

*2024 projected based on 7 months of actuals and 5 months of forecast data

MICHIGAN PUBLIC SERVICE COMMISSION

Consumer's Energy Company

Projected Versus Actual Enhancement Capital Expenditures and O&M Expense Summary and Analysis

Information Technology

For Years 2019 Through 2026

(\$0)

Case No.: U-21806
Exhibit No.: A-24 (SHB-9)
Page: 2 of 2
Witness: SHBaker
Date: December 2024

Line No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)	Actuals/Projected (Capital and O&M)				Projected (Capital and O&M)				(i)	(j)
								2019	2020	2021	2022	2023	2024 Projected	2025 Projected	2026 Projected		
1	Total Gas Projected (Requested) Spend		\$ 1,075,352	\$ 1,247,089	\$ 1,559,702	\$ 3,365,360	\$ 3,069,418	\$ 5,231,436	\$ 7,486,165	\$ 7,069,450	\$ 7,416,712						
2	Total Gas Actual/Projected Spend		\$ 1,793,892	\$ 2,080,660	\$ 3,358,613	\$ 6,487,630	\$ 3,808,544	\$ 4,250,761	\$ 7,486,165	\$ 7,069,450	\$ 7,416,712						
3	Total Company Incremental Annual Worklist	**	\$ 89,651	\$ 164,509	\$ 901,016	\$ 2,675,947	\$ 4,457,056	\$ 16,068,091	\$ (267,339)	\$ 125,424	\$ (201,879)						
4	Total Gas Allocation Incremental Annual Worklist	***	\$ 27,541	\$ 48,826	\$ 267,422	\$ 803,052	\$ 1,429,824	\$ 4,876,666	\$ (84,025)	\$ 39,421	\$ (63,451)						
5	Total Gas Annual Demand		\$ 1,821,433	\$ 2,129,486	\$ 3,626,035	\$ 7,290,682	\$ 5,238,368	\$ 9,127,427	\$ 7,218,826	\$ 7,194,873	\$ 7,214,834						
6	Total Company Cumulative Worklist		\$ 89,651	\$ 254,161	\$ 1,155,177	\$ 3,831,124	\$ 8,288,180	\$ 24,356,271	\$ 24,088,932	\$ 24,214,355	\$ 24,109,836						
7	Total Gas Allocation Cumulative Worklist (Demand)	***	\$ 27,541	\$ 75,435	\$ 342,856	\$ 1,149,720	\$ 2,658,848	\$ 7,392,128	\$ 7,571,151	\$ 7,610,572	\$ 7,577,721						

**2025 and 2026 projected Total Incremental Annual Worklist based on 3-year average of Total Annual Demand (actual spend plus incremental planned worklist) less projected spend

***Estimated Gas Allocation

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
Enhancement Worklist Detail
Information Technology
For Years 2016 Through October 21, 2024
(\$0)

Line No.	(a) Open Date	(b) Number	(c) Type	(d) Description	(e) State	(f) Portfolio	(g) Configuration Item	(h) Requestor Department	(i) Total Estimated Hours	(j) Planned Cost
1	1/30/2016	DMND0003200	Enhancement	RM00176542 SAP SD configuration update	Qualified	IT &AO	SAP CCS BACK OFFICE	Cx&T-IT-TS&M-App Platforms	40	3,177
2	2/1/2016	DMND0003801	Enhancement	Ticket for labor to install a VC system purchased in 2015 for Panall East	Qualified	Electric & Gas Combined	VIDEO CONFERENCING	Cx&T-IT-IP&S-Digital Ops- IT Constructio	-	9,096
3	2/11/2016	DMND0009972	Enhancement	Install and host the Quality Training Database (QTD) application on CE ser	Screening	Electric	Quality Training Database - QTD	ED GM-System Operations Support	-	-
4	2/15/2016	DMND0010621	Enhancement	RM00095603 Email Notifications for Landlord Portal	Qualified	IT CE&O	LLP	Cx&T-Product Experience & Perf	412	32,721
5	3/7/2016	DMND0017568	Enhancement	EDI controls reports are needed	Qualified	Customer	SAP CCS BACK OFFICE	Accounts Payable & Receivable	151	11,992
6	4/4/2016	DMND0025090	Enhancement	OOB Invoices need mailed	Approved	Customer	SAP CCS BACK OFFICE	NON-ENERGY BILLING	94	-
7	6/2/2016	DMND0033513	Enhancement	Feature Add	Qualified	IT &AO	ServiceNow	Cx&T-Security-Network Security	23	1,633
8	6/27/2016	DMND0035603	Enhancement	Correct OOB Invoice Issues	Qualified	Customer	SAP CCS BACK OFFICE	BILLING CNTLS & INTERCOMPANY BILLING	158	12,548
9	7/26/2016	DMND0038277	Enhancement	Delete incorrect/never used mailing addresses in SAP	Qualified	IT CE&O	SAP CCS FRONT OFFICE	Mktg Intel-Mktg Analytics	1,500	119,130
10	10/5/2016	DMND0045344	Enhancement	Allow CRM 7 Alert to Look for Independent Phone Number	Qualified	IT CE&O	CRM7	Rates & Reg-Compliance	183	14,534
11	1/20/2017	DMND0053207	Enhancement	Updates to Non-Compliance area needed	Qualified	IT &AO	ServiceNow	Cx&T-IT-E&GS-PlanningScheduling&MeterTec	35	2,503
12	5/9/2017	DMND0059073	Enhancement	Automate Test Evidence for SOX compliance in ServiceNow Change Tickets	Screening	IT &AO	ServiceNow	Cx&T-IT-Service Now	-	-
13	6/6/2017	DMND0060518	Enhancement	Block old rates from being used	Qualified	IT CE&O	SAP CCS BACK OFFICE	REVENUE & FUEL ACCOUNTING	104	8,260
14	6/12/2017	DMND0060511	Enhancement	Archive event logs to Event Management archive.	Qualified	IT &AO	ServiceNow	Cx&T-IT-IP&S-Collaboration & Comms	68	5,401
15	7/26/2017	DMND0062416	Enhancement	Update Closure Rules due to Rescheduled	Qualified	IT &AO	ServiceNow	Cx&T-IT-Service Now	64	5,083
16	9/29/2017	DMND0065531	Enhancement	ServiceNow Change: Add Vendor to QA Tester Selection	Qualified	IT &AO	ServiceNow	Cx&T-IT-Service Now	22	1,747
17	10/6/2017	DMND0065076	Enhancement	Add Change Coordination & Affected CI to Reminder Notification	Qualified	App Platforms & Services	ServiceNow	Cx&T-IT-Service Now	22	1,747
18	10/11/2017	DMND0066369	Enhancement	Defects in TMD Creation Tool	Qualified	IT OPS	SAP PM	Lean - Elec Distribution	192	15,249
19	11/9/2017	DMND0067863	Enhancement	Additional Message to protect Inc tied to Chg from being downgraded	Qualified	IT &AO	ServiceNow	Cx&T-IT-Service Now	22	1,548
20	11/12/2018	DMND0070837	Enhancement	Non-Compliance calculations incorrect	Qualified	IT &AO	ServiceNow	Cx&T-IT-Service Now	35	2,780
21	2/6/2018	DMND0072549	Enhancement	Corporate Compliance SharePoint Site	Qualified	Corporate	SharePoint Administration	Ethics and Compliance	-	-
22	5/2/2018	DMND0076158	Enhancement	Create Notification For Code Promotion Task Activities	Qualified	IT &AO	ServiceNow	Cx&T-IT-S&G-ASDO	20	1,588
23	5/24/2018	DMND0078420	Enhancement	Revert to OOB for Templates	Qualified	IT &AO	ServiceNow	Cx&T-IT-Service Now	210	16,678
24	7/9/2018	DMND0081337	enhancement	ITAM needs to produce a automated reporting mechanism that tracks SCOM	Submitted	Corporate	SCCM Client Center	Cx&T-IT-S&G-Asset Management	-	-
25	8/7/2018	DMND0083079	Enhancement	ignore seconds in implementation window failure calculation	Qualified	IT &AO	ServiceNow	Cx&T-IT-Service Now	28	2,224
26	8/17/2018	DMND0083697	Enhancement	Notify Change Coordinator and Technical Manager Change Tickets	Qualified	IT &AO	ServiceNow	Cx&T-IT-S&G-ASDO	22	1,747
27	8/20/2018	DMND0084573	Enhancement	Suppress code promotion/implementation task for non-PROD	Qualified	IT &AO	ServiceNow	Cx&T-IT-Service Now	56	4,448
28	11/4/2018	DMND0088854	Enhancement	Improvements to WeCare Form	Qualified	IT CE&O	Consumers Web Site	Cx&T- Customer Care	201	15,963
29	12/4/2018	DMND0091325	Enhancement	Internal Correspondence - Deceased; auto fill Interaction Records	Qualified	IT CE&O	SAP CCS FRONT OFFICE	DCO RO-Bankruptcy & Loss	126	10,007
30	1/2/2019	DMND0094966	Enhancement	Tech Val Non-Compliance not allowing removal	Qualified	IT &AO	ServiceNow	Cx&T-IT-Service Now	33	2,621
31	1/8/2019	DMND0095213	Enhancement	Don't Require Outage if Parent Change Covers It	Qualified	IT &AO	ServiceNow	Cx&T-IT-Service Now	25	1,775
32	1/11/2019	DMND0095787	enhancement	AccessNOW Request Request	Submitted		ServiceNow	Cx&T-IT-S&G-ASDO	-	-
33	1/22/2019	DMND0096689	enhancement	RPA - Automation of Forecasting Template loads to SAP	Submitted		SAP ERP FINANCE	BP&A-DSS Master Data COE	-	-
34	3/5/2019	DMND0098054	Enhancement	Automate the Automation Tool Enhancement	Qualified	IT CE&O	SAP CCS RATES	Rates & Reg-Rate Administration	171	13,581
35	2/14/2019	DMND0098936	Enhancement	Automation, via an RPA, the steps to get off of BOS	Screening	Customer	SAP CCS FRONT OFFICE	Cx&T-IT-Contact Center and Digital Ops	-	-
36	2/21/2019	DMND0099581	Enhancement	Need extended field on an Asset Record called Order Reference Number	Qualified	Governance	ServiceNow	Cx&T-IT-IP&S-IT Device Purch & Deploy	52	4,130
37	4/16/2019	DMND0104131	enhancement	Activate Business Process Monitoring KPIs in Solution Manager	Submitted		SAP SolMan - BASIS	Cx&T-IT-S&G-ASDO	-	-
38	4/22/2019	DMND0104479	Enhancement	Remove Technical Validation Complete Button once clicked	Qualified	IT &AO	ServiceNow	Cx&T-IT-Service Now	22	1,747
39	4/22/2019	DMND0104481	enhancement	Export MS Outlook Contacts With an Additional Field (UserId)	Submitted		Outlook	Property Accounting Reporting	-	-
40	5/1/2019	DMND0105248	Enhancement	Create a tool to test the Storm Dashboard that simulates users	Qualified	Electric	Storm Dashboard	Elec GIS LVD Operations	123	9,769
41	5/16/2019	DMND0106408	Enhancement	Add Planned Start/End to CTA&K notifications and resend on reschedule	Qualified	IT &AO	ServiceNow	Cx&T-IT-Service Now	25	1,986
42	5/16/2019	DMND0106410	Enhancement	Lockdown Contingency Dates field in Change Form	Qualified	IT &AO	ServiceNow	Cx&T-IT-Service Now	14	1,112
43	5/16/2019	DMND0106415	Enhancement	Install Activity - Replicate on SAP E25 150	Screening	IT ACDC	SAP ECS	Cx&T-IT-Data & Analytics-Platforms	32	2,541
44	6/11/2019	DMND0107862	enhancement	We need to populate the Office field in Asset list from assigned to user.	Submitted		ServiceNow	Cx&T-IT-TS&M-Data Networks Operations	-	-
45	7/9/2019	DMND0109188	Enhancement	Update The GCC Postcard	Qualified	IT TEOS	SAP CCS BACK OFFICE	GE&S/GMS-Gas Cust Choice	108	6,116
46	7/25/2019	DMND0110354	enhancement	Retire Charm old maintenance cycles /phases	Submitted		SAP ECC - BASIS	Cx&T-IT-S&G-ASDO	8	635
47	8/2/2019	DMND0110809	Enhancement	Allow user options of Type and Location for outage notifications	Qualified	IT &AO	ServiceNow	Cx&T-IT-Service Now	97	7,704
48	8/14/2019	DMND0111406	Enhancement	Add Category Item to Service Portal to access Calero VeraSMART	Qualified	Governance	ServiceNow	Cx&T-IT-P&G-Vendor & Asset Mgmt	52	7,374
49	8/27/2019	DMND0112063	Enhancement	Need Automation to Track ESB notification failures	Qualified	IT &AO	ServiceNow	Cx&T-IT-Electric Supply & Asset Mgmt	-	-
50	9/6/2019	DMND0112727	Enhancement	Automate part or all of the Invoice Audit process using a .NET program	Screening	Customer	SAP CCS BACK OFFICE	BILLING CNTLS & INTERCOMPANY BILLING	-	-
51	10/16/2019	DMND0115341	Enhancement	Problem Management - Known error state fields	Qualified	Governance	ServiceNow	Cx&T-IT-Digital Enablement	47	3,733
52	10/28/2019	DMND0115902	Enhancement	ServiceNow Change Form - field default/selection changes	Qualified	IT &AO	ServiceNow	Cx&T-IT-Service Now	66	4,879
53	10/28/2019	DMND0115905	Enhancement	ServiceNow Change: Conflict Checker Automation	Qualified	IT &AO	ServiceNow	Cx&T-IT-Service Now	40	2,976
54	10/30/2019	DMND0116126	Enhancement	Add 'Critical Gas Control Site' checkbox to Locations	Qualified	Governance	ServiceNow	Cx&T-IT-Service Now	53	2,922
55	11/8/2019	DMND0116640	Enhancement	Remove Planned Start End from non-PROD Code promotion tasks	Qualified	IT &AO	ServiceNow	Cx&T-IT-Service Now	13	956
56	11/14/2019	DMND0116902	Enhancement	Allow attachments to the mixed meter investigation orders	Screening	IT CE&O	SAP CCS BACK OFFICE	Cx&T-Customer Billing Res	-	-
57	11/26/2019	DMND0117927	Enhancement	Allow Review to Review in WIP State	Qualified	IT &AO	ServiceNow	Cx&T-IT-Service Now	35	2,503
58	11/26/2019	DMND0117930	Enhancement	Auto-populate & hide category field	Qualified	IT &AO	ServiceNow	Cx&T-IT-Service Now	19	1,331
59	12/6/2019	DMND0118554	Enhancement	PROD Code Promotion Task workflow changes	Qualified	IT &AO	ServiceNow	Cx&T-IT-Service Now	30	2,105
60	12/6/2019	DMND0118555	Enhancement	Change Logic on QA Code Promotion Task	Qualified	IT &AO	ServiceNow	Cx&T-IT-Service Now	24	1,741
61	12/10/2019	DMND0118770	Enhancement	Hide Implementation Field/Prevent Wrong Assignment	Qualified	IT &AO	ServiceNow	Cx&T-IT-S&G-ASDO	14	1,023
62	12/11/2019	DMND0118800	Enhancement	Restrict Code Promotion Task Closure	Qualified	IT &AO	ServiceNow	Cx&T-IT-S&G-ASDO	30	2,099
63	12/11/2019	DMND0118821	Enhancement	Add "Planned Start Date" of Change Ticket into RM Notifications	Qualified	IT &AO	ServiceNow	Cx&T-IT-S&G-ASDO	18	1,296
64	12/11/2019	DMND0118822	enhancement	Disable Messaging in Ch&RM	Submitted		SAP SolMan - BASIS	Cx&T-IT-S&G-ASDO	-	-
65	12/20/2019	DMND0119411	Enhancement	Bill Message Update - Previous Annual Due	Qualified	Customer	SAP CCS BACK OFFICE	Rev Ops - Energy Assistance & Payment Pr	31	997
66	2/7/2020	DMND0122639	Enhancement	TreeBranch/Limit on line add statement if service has been damaged	Qualified	IT CE&O	SAP CCS FRONT OFFICE	Cx&T SCC-VCC PMCS	16	1,188
67	2/14/2020	DMND0123010	Enhancement	CSDO bug found where customer's get <21 days due date	Qualified	Customer	SAP CCS BACK OFFICE	Accounts Payable & Receivable	214	15,067
68	2/27/2020	DMND0123272	Enhancement	Digital - Application Programming Interface Fabric	Qualified	App Platforms & Services	MySQL Database	Cx&T-IT-Strategy & Governance	320	33,920
69	2/27/2020	DMND0123697	Enhancement	UIPath to Replace BluePrints for Unattended	Qualified	IT ACDC	UIPath	Cx&T-IT-Development Foundation	270	22,584
70	3/4/2020	DMND0123989	Enhancement	How do we ensure the SAP Printers	Screening	Gas	EcoPrint-And-Printer_PS	Operations Software & Technology	-	-
71	3/20/2020	DMND0125045	Enhancement	Provide a Quick Link to Bill Impact Tool for all Contact Center Staff Memb	Screening	IT CE&O	Customer Portal Admin	Cx&T-Quality & Data Systems	-	-
72	4/30/2020	DMND0126971	Enhancement	Upgrade Quest Password Manager to latest version	Screening	IT &AO	Password Manager	Cx&T-IT-IP&S-Automation & Virtual Sprt	1	79
73	5/21/2020	DMND0128366	enhancement	Allow Copying of Standard Change Templates between Teams	Submitted		ServiceNow	Cx&T-Security-Security Infra & Delivery	-	-
74	6/8/2020	DMND0129099	Enhancement	SAP Exception - Host Inquiry Work Order Creation Failed - Functional Local	Qualified	Electric & Gas Combined	SAP WORK ORDERS	Operations Software & Technology	360	25,948
75	6/10/2020	DMND0129408	enhancement	Service Suite Mobile app - priority customer and highlight key work orders	Submitted		Service Suite	Cx&T-IT-Work and Asset Management	-	-
76	6/23/2020	DMND0130727	Enhancement	Reconfigure Timing and Frequency of Emergency Change Closure Notifications	Qualified	IT &AO	ServiceNow	Cx&T-IT-S&G-ASDO	17	1,284
77	7/9/2020	DMND0132134	Enhancement	Auto assign tickets Remote Desktop team based on availability and capacity	Qualified	Infra Platforms & Services	ServiceNow	Desktop Support Jackson	80	5,942
78	8/4/2020	DMND0133953	Enhancement	VR - Class Grouping & Assignment Rules Enhancement - Elevated access	Qualified	Infrastructure Platforms & Services	ServiceNow	Cx&T-IT-IP&S-Monitoring	52	3,851
79	8/7/2020	DMND0134229	Enhancement	Set up Azure Cloud Discovery in our Service Now tenants	Qualified	Strategy	Service Catalog	Cx&T-IT-Development Foundation	40	2,630
80	10/26/2020	DMND0141119	Enhancement	Timed Approval and Validation	Screening	IT CE&O	UIPath	Cx&T-Quality & Data Systems	-	-
81	10/26/2020	DMND0141123	Enhancement	Third Party Notification	Screening	IT CE&O	UIPath	Cx&T-Quality & Data Systems	-	-
82	10/26/2020	DMND0141218	Enhancement	Allow Non Energy Account Over Payment	Screening	IT CE&O	SAP CCS FRONT OFFICE	Cx&T-Digital Operations	-	-
83	10/27/2020	DMND0141417	Enhancement	Closure Failure Calculation Causing False Non-Compliance in ServiceNow	Qualified	Governance	ServiceNow	Cx&T-IT-S&G-ASDO	29	1,920
84	11/13/2020	DMND0143177	Enhancement	CR Infoblox in Azure	Screening	Infra Platforms & Services	Infoblox	Cx&T-IT-Development Foundation	212	16,837
85	12/14/2020	DMND0144441	Enhancement	CatCrew Enhancements: Dispatch Whiteboard & CE Resource Availability form	Qualified	Strat & Govern	Catastrophic Crewing - CatCrew	ED GM-LVD Dispatch	177	11,941
86	12/14/2020	DMND0144449	Enhancement	SAP CM40 automation enhancement	Qualified	Electric	SAP WORK ORDERS	Cx&T-IT-Work and Asset Management	303	21,318
87	1/14/2021	DMND0145977	Enhancement	Access to work order creation for CSRs OPT/OUT/GAS/CM/SMART/METER	Qualified	Customer	SAP CCS FRONT OFFICE	Cx&T SCC-CCC Policy & Procedures	6,876	869
88	1/14/2021	DMND0146047	Enhancement	Integration of request and Incident ticket workflows with Pinery Board	Qualified	Infrastructure Platforms & Services	ServiceNow	Desktop Support Jackson	68	18,005
89	1/8/2021	DMND0146402	Enhancement	work order creation - hard stop for select orders	Qualified	IT CE&O	CRM7	Cx&T SCC-CCC Policy & Procedures	1,500	10,921
90	1/14/2021	DMND0146665	enhancement	Upgrade the Dialog Direct Call Center Infrastructure/Platform	Submitted		SAP CCS BACK OFFICE	Cx&T-IT-Cust-Rates Rev Gen & Collect	-	-
91	1/22/2021	DMND0147200	enhancement	CRM work order processing - change to 911 Call Summary	Submitted		SAP CCS FRONT OFFICE	Cx&T SCC-CCC Policy & Procedures	-	-
92	1/22/2021	DMND0147203	Enhancement	ServiceNow Vulnerability Response - Integration Run Monitoring and Notific	Qualified	Infrastructure Platforms & Services	ServiceNow	Cx&T-IT-IP&S-Monitoring	81	6,026
93	1/27/2021	DMND0147471	enhancement	Mass Ping Tool v2	Submitted		OMS Bulletin Board	ED GM-LVD Dispatch	-	-
94	1/27/2021	DMND0147522	enhancement	SAP Post Data Refresh - CRB Contract Accounts	Submitted		SAP CCS BACK OFFICE	Cx&T-S&G-ASDO	-	-
95	1/31/2021	DMND0147677	Enhancement	SAP Post Data Refresh - Missing business rules in CRM	Screening	Governance	SAP CCS BACK OFFICE	Cx&T-IT-S&G-ASDO	-	-
96	2/12/2021	DMND0148711	enhancement	Adding Orig_Read field to Meter Reader Error Report	Submitted		SAP CCS BACK OFFICE	GE&S/GAM/PS-TIMP	-	-
97	3/10/2021	DMND0150357	enhancement	Damage Assessment Mobile App - New Functionality	Submitted		Outage Management System - O/Lean	Lean - Elec Distribution	-	-
98	3/16/2021	DMND0150717	Enhancement	A standardized way to get the SSO integration process started with new pro	Qualified	App Platforms & Services	ServiceNow	Cx&T-Security-Identity Platforms	136	8,751
99	4/7/2021	DMND0151823	enhancement	Automatic Outage Notifications	Submitted		Storm Dashboard	Lean - Elec Distribution	-	-
100	4/20/2021	DMND0152479	Enhancement	SAP to IEE Sync Send Only Current Time Slice	Qualified	IT CE&O	IEE	EO-Smart Energy Operations A	-	26,106
101	4/21/2021	DMND0152549	Enhancement	Develop new Bill Consolidator Code in SAP	Screening	IT TEOS	SAP CCS BACK OFFICE	GE&S/GMS-Gas Transport & Cust Choice	-	-
102	4/26/2021	DMND0152732	Enhancement	Create a new catalog item	Qualified	Infrastructure Platforms & Services	ServiceNow	Cx&T-IT-IP&S-Automation & Virtual Sprt	41	2,605
103	4/29/2021	DMND0152957	enhancement	Lockdown Contingency Dates field in Change Form	Submitted		SAP Quality Management	Cx&T-IT-S&G-ASDO	-	-
104	5/10/2021	DMND0153605	Enhancement	Electric Inspections Application Enhancements	Screening	Electric	Electrical Inspection Web	Cx&T-IT-Work and Asset Management	-	144,552
105	5/13/2021	DMND0153878	Enhancement	Orders which are modified in the updated folder in service suite to not dr	Qualified	Electric & Gas Combined	SAP EAM Interface	GO-Gas Scheduling SE	745	53,739
106	5/20/2021	DMND0154463	Enhancement	Implement a Master Data intake work flow with approvals and communications	Qualified	Corporate	SAP ERP FINANCE	BP&A-DSS Master Data COE	2,079	150,170
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Line No.	(a) Open Date	(b) Number	(c) Type	(d) Description	(e) State	(f) Portfolio	(g) Configuration Item	(h) Requestor Department	(i) Total Estimated Hours	(j) Planned Cost
113	8/4/2021	DMND0159709	Enhancement	Rate Optimization Phase 2	Approved	Customer	SAP CCS BACK OFFICE	Rates & Reg-Rate Administration	2,394	199,551
114	8/4/2021	DMND0159710	enhancement	Cannot directly open ChARM unless logged into SolMan	Submitted		ServiceNow	Cx&T-IT-S&G-ASDO	-	-
115	8/9/2021	DMND0160130	Enhancement	Send additional Current Occupant turn off letter every 120 days	Qualified	IT CE&O	SAP CCS FRONT OFFICE	DCO-Rev Ops-Credit Operations	136	9,464
116	8/17/2021	DMND0160575	Enhancement	VR - Build Backfill Job to correct Missing VIT Data	Qualified	Infrastructure Platforms & Services	ServiceNow	Cx&T-IT-IP&S-Monitoring	46	2,936
117	8/26/2021	DMND0161178	Enhancement	In ServiceNow Change Form, Hide Change Manager Exception from ITIL Users	Approved	Governance	ServiceNow	Cx&T-IT-S&G-ASDO	38	2,464
118	9/13/2021	DMND0162757	Enhancement	Automated Developer Environments	Approved	App Platforms & Services	Azure DevTest Labs	Cx&T-IT-S&G-Strategy E&A	1,277	101,419
119	10/1/2021	DMND0164324	enhancement	Load COMET Data to Dataverse	Submitted		Microsoft Dynamics 365 COMET	Cx&T-IT-Contact Center and Digital Ops	-	-
120	10/1/2021	DMND0164333	enhancement	dataverse request	Submitted		SAP	Supply Chain Systems	-	-
121	10/7/2021	DMND0164923	enhancement	Enhancement to az_restoration_predictions	Submitted		SAP BI	CXCO Customer Data Analytics	-	-
122	10/8/2021	DMND0164942	Enhancement	INC0738630 - Not displaying all the Device Location remark - DMND0143012 -	Qualified	Gas	SAP WORK ORDERS	Operations Software & Technology	-	24,000
123	10/8/2021	DMND0165038	Enhancement	Service Catalog > Hardware, Work Order field validation RPA: SAP cust acct note on gas incidents to track restoration start to fi	Qualified	Governance	ServiceNow	Cx&T-IT-S&G-Asset Management	96	6,180
124	10/13/2021	DMND0165335	enhancement	Configure Otkta for use with Adobe SSO	Screening		SAP WORK ORDERS	Cx&T-IT-Gas Supply & Asset Mgmt	-	-
125	10/18/2021	DMND0165596	enhancement	APIM - API Catalog Portal	Submitted		Adobe Acrobat	Cx&T-Security-Identity Orchestration	-	-
126	10/27/2021	DMND0166120	Enhancement	allow field to correct the stand type left on meter orders	Approved	App Platforms & Services	Azure APIM Development	Cx&T-IT-Apps, Platforms & Services	690	52,709
127	10/28/2021	DMND0166203	Enhancement	PowerApps team to build a new maturity scale & dashboard	Qualified	Gas	Service Suite	GO-Gas Dispatch & Scheduling Support	403	24,757
128	11/8/2021	DMND0166799	enhancement	Loading Meter Read Test Data on External Test Environments	Submitted		N/A	Ethics and Compliance Oversight	-	-
129	12/3/2021	DMND0168261	Enhancement	Add two new SAP Task List & Operation transactions IA38 & IA39	Screening	IT CE&O	SAP CCS BACK OFFICE	Cx&T-IT-Cust-Rates Rev Gen & Collect	-	-
130	12/8/2021	DMND0168553	Enhancement	New hardware storage for video communications team	Approved	Gas	SAP WORK ORDERS	Operations Software & Technology	-	24,000
131	1/5/2022	DMND0169644	Enhancement	FIN / FOS team would like to automate time premiums for 16 hour shift wast	Qualified	IT I&AO	Juniper Network Connect Client	CX&T-IT-CPF-P&C	-	297,715
132	1/10/2022	DMND0169926	Enhancement	Improvements to Personas	Qualified	Gas	SAP EAM Interface	Operations Software & Technology	308	17,599
133	1/12/2022	DMND0170179	Enhancement	Gas Bypass Phase 4	Qualified	Gas	SAP PERSONAS GEN & RENEWAE LUDINGTON PUMP STORAGE MAINTENANCE	Cx&T-IT-DCO-Work Mgmt	84	19,000
134	1/18/2022	DMND0170456	Enhancement	Add Maintenance WK Center Identifier to GIS database	Screening	Gas	SAP WORK ORDERS	GE&S/Gas Asset Info/Gas Distribution	-	-
135	1/23/2022	DMND0170762	enhancement	Cell Phone notification if near a TOV	Submitted		GIS	Electric Operations Safety	-	-
136	1/27/2022	DMND0171205	Enhancement	AutoETR A/B Testing	Submitted		Threats Of Violence Map Layer	CXCO Customer Data Analytics	-	-
137	2/2/2022	DMND0171628	enhancement	Outage cause logic and automation of cause when Hazard is associated with outage	Submitted		oms	Electric Operations Safety	-	-
138	2/22/2022	DMND0173316	enhancement	Need software to automate and track MPSC compliance requirements and rules	Submitted		Outage Management System - OIGM-Products & Reporting	-	-	-
139	2/22/2022	DMND0173320	enhancement	Streelight Mapping Update for non-CE Lighting	Submitted		SAP	Rates & Reg-Compliance	-	-
140	3/1/2022	DMND0173772	Enhancement	Damage Assessment App for ArcGIS Enterprise	Submitted		Service Suite	Electric Distribution Strategy	-	-
141	3/8/2022	DMND0174317	Enhancement	ConsumersEnergy.com 'Brute Force' Vulnerability	Submitted		ArcGIS	Electric GIS	-	-
142	3/8/2022	DMND0174353	Enhancement	SAP TMD Tool Update - Will Run out of 250RM Meters by October - Required C	Approved	Customer	SAP CCS FRONT OFFICE	Cx&T-Digital Operations	1,428	200,000
143	3/11/2022	DMND0174752	Enhancement	Implement Net Metering Calc in SAP for C&I accounts	Screening	Gas	SAP DESIGN DOCUMENTS	WMM&CO Process Perf & Tech	-	-
144	3/14/2022	DMND0174883	enhancement	Guest Pay ACH	Submitted		SAP CCS BACK OFFICE	Cx&T-Customer Billing B	-	-
145	3/14/2022	DMND0174898	enhancement	AppCurr-Gas - SIMSWeb 2023	Submitted		SAP CCS FRONT OFFICE	Cx&T-Digital Operations	-	-
146	3/16/2022	DMND0175111	Enhancement	Asset Audit/Inventory - Mobile Functionality	Approved	Gas	SIMSWeb	Technology Portfolio Management	530	26,890
147	3/17/2022	DMND0175262	enhancement	Removal of Green Tag Device location when Notification is Complete	Submitted		ServiceNow	Cx&T-IT-S&G-Asset Management	-	-
148	3/23/2022	DMND0175569	Enhancement	Automation of Change and Release Process between ServiceNow and Azure DevO	Qualified	Electric	SAP NOTIFICATIONS	GO-Gas Dispatch	305	21,360
149	3/23/2022	DMND0175653	Enhancement	Enable ChARM Creation While Change Request is in WIP	Approved	App Platforms & Services	ServiceNow - PROD	Cx&T-IT-S&G-Strategy E&A	524	40,803
150	4/1/2022	DMND0176410	enhancement	e-Bills - would like to add e-Bill personalization to SMB customers	Submitted		ServiceNow	Cx&T-IT-S&G-ASDO	-	-
151	4/4/2022	DMND0176529	enhancement	On-Call Schedule Process - Agent Swaps	Submitted		SAP CCS FRONT OFFICE	Cx&T-Residential ET	-	-
152	4/4/2022	DMND0176532	enhancement	MAOP - Remove bad system values from publication	Submitted		SAP CCS FRONT OFFICE	Cx&T RP TECH	-	-
153	4/12/2022	DMND0177112	enhancement	GAS BYPASS UPGRADES 175/250 CHANGES	Submitted		Technology Portfolio Management	-	-	-
154	4/13/2022	DMND0177253	Enhancement	Guest Pay ACH to Use Existing Payment Source	Screening	Gas	SAP WORK ORDERS	Cx&T-IT-DCO-Work Mgmt	437	28,162
155	4/14/2022	DMND0177405	enhancement	EV90 Evaluation for Company IT Standards	Submitted		ESB	Cx&T-Digital Operations	-	-
156	4/20/2022	DMND0177795	enhancement	Updating and long term storage of Sitecore data tables created from ASP co	Submitted		EV90 - Distributed	EO-Smart Energy Operations A	-	-
157	4/25/2022	DMND0178109	enhancement	New Alert needed for new field process when an action is needed for a prem	Submitted		SAP CCS FRONT OFFICE	Cx&T-IT-Contact Center and Digital Ops	-	-
158	4/28/2022	DMND0178405	enhancement	Update calculations on a SharePoint Online Site	Submitted		SharePoint	GE&S/GAM/Measurement Reliability & Engin	-	-
159	5/2/2022	DMND0178625	Enhancement	For RegCfgr error msgis for MR doc, implement functionality to reverse MR do	Qualified	IT CE&O	SAP CCS FRONT OFFICE	Cx&T SCC-CCC Policy & Procedures	12	845
160	5/3/2022	DMND0178662	Enhancement	Changes to Electric GIS Web Viewer	Qualified	Customer	SAP CCS BACK OFFICE	Cx&T-Cust Ops Projects & Support	300	16,664
161	5/11/2022	DMND0179299	Enhancement	Data Lake for SAP/OpenText Vendor Invoice management	Qualified	Electric	Electric GIS	Electric GIS	81	6,024
162	5/20/2022	DMND0179928	Enhancement	Performance Manager	Approved	Corporate	SAP ERP ACCOUNTS PAYABLE	Cx&T-IT-CPF-Corporate Shared Products	420	29,982
163	5/24/2022	DMND0180046	Enhancement	To give non-energy customers the choice to set up their invoice electronically	Approved	IT TEOs	Iron Performance Manager (IPM)	Technology Portfolio Management	170	12,080
164	5/24/2022	DMND0180046	Enhancement	Business Case Development - ITVAM Tool Enhancement for IT Services Suppli	Approved	App Platforms & Services	FDM_CMS	Technology Portfolio Management	170	12,080
165	5/24/2022	DMND0180079	enhancement	Business Case Development - ITVAM Tool Enhancement for IT Services Suppli	Submitted		Customer facing websites	Real Estate-Proj Controls	-	-
166	5/24/2022	DMND0180102	enhancement	ARCfM Web for Electric GIS Web tracing	Submitted		Enlighta Govern	Cx&T-IT&S-Technology Portfolio Office	-	-
167	5/26/2022	DMND0180210	Enhancement	Hardware Suppliers	Qualified	Electric	Electric GIS	Electric GIS	100	9,657
168	5/27/2022	DMND0180347	enhancement	Business Case Development - IT VM Tool Enhancement for IT Software Suppliers	Submitted		Enlighta Govern	Cx&T-IT&S-Technology Portfolio Office	-	-
169	5/27/2022	DMND0180349	enhancement	Implement Phase 2 - SW Uninstall Process Automation	Submitted		Enlighta Govern	Cx&T-IT&S-Technology Portfolio Office	-	-
170	6/2/2022	DMND0180637	Enhancement	Power BI add-in for PowerPoint	Approved	App Platforms & Services	ServiceNow	Cx&T-IT-Service Now	240	11,671
171	6/6/2022	DMND0180751	Enhancement	Expand ConsumersEnergy.com Sitecore Front-End Servers from 4 to 6	Screening	IT CE&O	Microsoft 365 - Exchange	CXCO Customer Data Analytics	2	159
172	6/8/2022	DMND0180878	Enhancement	SN - Modify and Add fields to Purchase Requests	Approved	Customer	Sitecore	Cx&T-Digital Operations	2,262	166,265
173	6/13/2022	DMND0181141	Enhancement	Append INC2 to ADO Card Title for OT	Qualified	Application Platforms & Services	ServiceNow	Supply Chain Systems	80	3,886
174	6/28/2022	DMND0181378	enhancement	ARCOS to SAP Integration For Work Schedules	Submitted		ServiceNow	Cx&T-IT-Service Now	-	-
175	7/1/2022	DMND0182147	Enhancement	Send All related MissDig Ticket information to Service Suite	Approved	Corporate	ARCOS	P&C-Employee Services	578	50,216
176	7/15/2022	DMND0182656	Enhancement	Add High Bill Alert Enrollment for Gas AMI Customers	Qualified	Gas	SAP WORK ORDERS	Cx&T-IT-Work and Asset Management	2,679	202,593
177	7/18/2022	DMND0182699	enhancement	Add CT Ratio verification to EMITS work orders	Submitted		Energy Usage Dashboard	Exp Design Utility Services	-	-
178	8/3/2022	DMND0183703	Enhancement	Provide rotation indicator field on metering polypase self-contained work	Qualified	Gas	Service Suite	EO-Elec Meter Ops	930	56,001
179	8/8/2022	DMND0183884	Enhancement	Hard Stop for premises the require an inspection	Qualified	Electric	SAP WORK ORDERS	EO-Elec Meter Ops	1,173	74,542
180	8/10/2022	DMND0183990	Enhancement	2023: Change Sync of Ownership Attributes - Owned by and Managed by for As	Screening	Customer	CRM7	Cx&T-Customer Billing Res	-	-
181	8/11/2022	DMND0184042	Enhancement	add a space on the storm dashboard of accumulative outages for that day	Approved	App Platforms & Services	ServiceNow	Cx&T-IT-Digital Enablement	55	2,973
182	8/16/2022	DMND0184229	enhancement	Change MDUS delay	Submitted		SAP CCS FRONT OFFICE	Cx&T RP TECH	-	-
183	8/24/2022	DMND0184689	Enhancement	VR Training - Piggling and other modules	Screening	Customer	SAP CCS BACK OFFICE	Cx&T-Customer Billing Res	-	-
184	8/24/2022	DMND0184751	Enhancement	Service Suite missing field for CT Ratio from MITS and ITR Orders	Approved	Gas	OQ Plus	Cx&T-IT-Gas	324	485,075
185	8/29/2022	DMND0184943	enhancement	2023: Implement Standard Change Catalog in ServiceNow	Submitted		SAP WORK MANAGEMENT	EO-Elec Mtr Ops-Zone 7	-	-
186	8/30/2022	DMND0185080	Enhancement	2023: Add 3 new fields to the Asset form	Qualified	App Platforms & Services	ServiceNow	Cx&T-IT-S&G-ASDO	143	6,985
187	8/31/2022	DMND0185188	Enhancement	PowerAutomate/PowerApps connector to datalake Lab	Qualified	Corporate	ServiceNow	Cx&T-IT-S&G-Asset Management	176	9,387
188	9/6/2022	DMND0185373	enhancement	2023: Build out Phase III of IT Vendor Management in ServiceNow	Submitted		cms_data_lake.ce.corp.com	Supply Chain Systems	-	-
189	9/6/2022	DMND0185390	enhancement	2023: Build out of ServiceNow for IT Vendor Management - Phase II	Submitted		ServiceNow	Cx&T-IT&S-Technology Portfolio Office	-	-
190	9/6/2022	DMND0185351	enhancement	2023: Update Text on Software Catalog Items that are not free	Submitted		ServiceNow	Cx&T-IT&S-Technology Portfolio Office	-	-
191	9/9/2022	DMND0185584	Enhancement	SAP table to store indirect sharing of ToV data between SAP and Endeavor	Approved	App Platforms & Services	ServiceNow	Cx&T-IT-Digital Enablement	31	1,533
192	9/15/2022	DMND0185758	Enhancement	Unifier to Primavera P6 Integration	Qualified	Infra Platforms & Services	SAP CCS BACK OFFICE	Cx&T-IT-Contact Center and Digital Ops	146	8,129
193	9/15/2022	DMND0185773	Enhancement	Create or repurpose an unused EMO work order mat type for commissioning tests	Qualified	Energy Combined	Unifier	Enterprise Project Management Office	532	44,915
194	9/16/2022	DMND0185822	enhancement	GCSP SIMS Data Conversion	Submitted	Gas	SAP WORK ORDERS	EO-Elec Meter Ops	-	-
195	9/19/2022	DMND0185967	Enhancement	FLC Automation RPA WE#15025	Qualified	Gas	SIMS Integration	Technology Portfolio Management	1,891	145,573
196	9/20/2022	DMND0185951	Enhancement	Supplemental eBill at Move Out	Approved	Electric	Blue Prism RPA	Cx&T-IT-S&G-Strategy E&A	755	51,431
197	9/26/2022	DMND0186329	Enhancement	PQView 4 - Version upgrade	Qualified	Customer	SAP CCS FRONT OFFICE	Cx&T-Digital Operations	171	9,573
198	9/28/2022	DMND0186510	Enhancement	Wireless Device Batch File Transfer from VeraSmart to ServiceNow	Qualified	Energy Combined	PQView	Technology Portfolio Management	-	8,552
199	9/29/2022	DMND0186597	Enhancement	Bill enhancement - credit do not pay	Qualified	Corporate	ServiceNow	Cx&T-IT-IP&S-Smart Ops & Analytics	246	12,046
200	10/3/2022	DMND0186784	enhancement	Add New 'Switched to Normal Change Process' Option in Std Change templates	Submitted		SAP CCS BACK OFFICE	Rev Ops - Energy Assistance & Payment Pr	-	-
201	10/3/2022	DMND0186788	enhancement	AUTOMATE C1 NOTIFICATION TASK ASSIGNMENT BASED OFF FUNCTIONAL LOCATION	Submitted		ServiceNow	Cx&T-IT-S&G-ASDO	-	-
202	10/3/2022	DMND0186796	enhancement	AutoETR Enhancements and A/B Testing	Submitted		SAP NOTIFICATIONS	Street Lighting	-	-
203	10/11/2022	DMND0187345	enhancement	P6 Integration using the Impress Tool	Submitted		Outage Management System - OI	CXCO Customer Data Analytics	-	-
204	10/17/2022	DMND0187645	Enhancement		Qualified	Energy Combined	Primavera P6	Enterprise Project Management Office	577	48,356

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205	10/18/2022	DMND0187754	Enhancement	2023: Asset form updates to the "Hard drive wiped status" dropdown menu	Approved	Strat & Govern	ServiceNow	Cx&T-IT-S&G-Asset Management	78	3,817
206	10/19/2022	DMND0187822	enhancement	Request access to Dataserve	Submitted		Power BI	IT-D&A Services-Data Architects	-	-
207	10/19/2022	DMND0187832	enhancement	2023: IT VDI Request workflow to remove the Supply Chain T&C	Submitted		SAP CCS BACK OFFICE	Rates & Reg-Rate Administration	-	-
208	10/19/2022	DMND0187851	Enhancement	Review step	Approved	App Platforms & Services	ServiceNow	Cx&T-IT-S&G-ASDO	63	3,066
209	10/20/2022	DMND0187897	Enhancement	SOAR Instructional Pop Up to appear daily	Qualified	Customer	Azure AD Authentication Connec	Exp Design Utility Services	90	4,810
210	10/21/2022	DMND0187973	Enhancement	Banner on SOAR during Storms	Qualified	Customer	Azure AD Authentication Connec	Exp Design Utility Services	190	10,143
211	10/26/2022	DMND0188322	Enhancement	Account Lookup Error Table	Qualified	Customer	SAP CCS FRONT OFFICE	Cx&T-Digital Operations	312	17,348
212	10/26/2022	DMND0188329	enhancement	GIS / SAP Functional loc / TRS comp for HDQ assign & trans	Submitted		GISElectric	Operations Software & Technology	-	-
213	10/26/2022	DMND0188366	enhancement	Complete the build of the ADMS integrated training environment	Submitted		Outage Management System - OI	Cx&T-IT-Grid Management	-	-
214	10/27/2022	DMND0188394	enhancement	On-premise Data gateway on our Server cvmwnt2934	Submitted		SAP BI	OP-Digital Products-II	-	-
215	10/31/2022	DMND0188533	Enhancement	Contaminated/Enviro. Safety message Change SAP WO Business Process to allow CRTD WOs with FCMP	Qualified	Gas	SAP WORK ORDERS	GO-Gas Distribution-East-Zone-2D	796	54,133
216	11/9/2022	DMND0189160	Enhancement	status to be re Need for real-time data to support our Storm Restoration Wait-Time	Qualified	Energy Combined	SAP WORK ORDERS	Operations Software & Technology	558	40,431
217	11/15/2022	DMND0189382	Enhancement	Tracker (real	Qualified	Energy Combined	Power BI	OP-Product Implementation-I	-	236,882
218	11/21/2022	DMND0189719	enhancement	Creation of an Intelligent Process Agent to classify records Enhance Storm Dashboard to include additional Restoration key metrics	Submitted		Total Information Management (	Cx&T-IT-CPF-Corporate Shared Products	-	-
219	11/21/2022	DMND0189727	enhancement	Customer Photos available in SOAR Admin Panel	Submitted		Storm Dashboard	Cx&T-IT-Work and Asset Management	-	-
220	11/29/2022	DMND0189941	Enhancement		Qualified	Customer	Azure AD Authentication Connec	Exp Design Utility Services	59	3,159
221	12/5/2022	DMND0190151	Enhancement	Gas Site Conditions Customer Contact Management and Automation	Screening	Electric	SAP NOTIFICATIONS	Cx&T-IT-Work and Asset Management	-	-
222	12/5/2022	DMND0190186	enhancement	Enhancement to our Report 20, PowerBI Reporting Voluntary Green Pricing Programs Billing Automation - LCREP	Submitted		Power BI	WM&CD Process Perf & Tech	-	-
223	12/6/2022	DMND0190287	enhancement	Automation	Screening		SAP CCS RATES	Cx&T-Cust Regulatory & Compliance	2,000	158,840
224	12/7/2022	DMND0190324	enhancement	Encrypt printer data over the network	Submitted		Pitney Bowes DocuMach? Job	D Deskside Support Jackson	-	-
225	12/9/2022	DMND0190430	Enhancement	Decommissioning Workflow Requirements Eliminate paperwork(3032) for letters and postcards under 500 pieces	Qualified	Corporate	ServiceNow	Cx&T-IT-S&G-Asset Management	94	4,596
226	12/13/2022	DMND0190554	enhancement		Submitted		SAP CCS BACK OFFICE	Output & Mail Processing	-	-
227	12/14/2022	DMND0190693	enhancement	Need a new Critical/Priority code added to SAP	Submitted		Business Partner Services	GM-Products & Reporting	-	-
228	1/6/2023	DMND0191301	Enhancement	Stand up ADMS Integrated Training Environment	Approved	Electric	ADMS OMS	L&D Generation & Ops Support	504	32,376
229	1/11/2023	DMND0191510	Enhancement	TIM Upgrade	Approved	Corporate	Total Information Management (	Cx&T-IT-Corporate Product Family	698	50,032
230	1/11/2023	DMND0191517	Enhancement	EICP (move data-) and decommission hardware	Approved	Corporate	EICP	Cx&T-IT-Corporate Product Family	283	20,240
231	1/11/2023	DMND0191525	Enhancement	UI Planner - server and database upgrade	Qualified	Corporate	UIPlanner	Cx&T-IT-Corporate Product Family	-	25,745
232	1/17/2023	DMND0191755	Enhancement	VR- Bifurcate OS and Non OS vulnerabilities at Third Party Library	Approved	Corporate	ServiceNow	Cx&T-IT-IP&S-Monitoring	63	3,098
233	1/17/2023	DMND0191851	Enhancement	Electric Contractor Scheduling Personas Screen	Qualified	Energy Combined	SAP PERSONAS DISTR SCHEDULI	WM&CD Gas Planning & Resource Mgmt-CTR	281	16,126
234	1/18/2023	DMND0191905	enhancement	Need data on customer account balance Need Enhancements to Custom Transaction ZSC4240_PROCESS_ERR2	Submitted		SAP CCS BACK OFFICE	GE&S/GMS-Gas Cust Choice	-	-
235	1/23/2023	DMND0192099	Enhancement	- Sort Error	Qualified	Energy Combined	SAP WORK MANAGEMENT	EO-Smart Energy Operations A	443	25,728
236	1/27/2023	DMND0192348	Enhancement	Share GIS Information with External Stakeholders	Approved	Electric	ARGIS	Technology Portfolio Management	844	187,800
237	1/30/2023	DMND0192467	enhancement	Automate Monthly MIC-6 Reporting Automate/Simplify Annual Standard Change Template	Submitted		ServiceNow	Cx&T-IT-S&G-ASDO	-	-
238	1/30/2023	DMND0192471	enhancement	Recertification	Submitted		ServiceNow	Cx&T-IT-S&G-ASDO	-	-
239	2/10/2023	DMND0193379	Enhancement	Calendar that will integrate multiple different planning calendars into 1 place	Qualified	Corporate	Power BI	Cx&T - Channels	-	10,594
240	2/22/2023	DMND0194019	Enhancement	Website SMB STP Enrollment Would like to have Romet test files uploaded to SAP from excel or like fil	Qualified	Customer	Consumers Web Site	Cx&T-Digital Operations	110	5,855
241	2/23/2023	DMND0194195	Enhancement	Upgrade EMMAX to Release 5 with Support Package 4 and configure PAM enhanc	Qualified	Electric	SAP QM	EO - MTC Production and Logistics.	281	15,612
242	2/24/2023	DMND0194257	Enhancement	Updating pre-programmed customer segmentation on MPSC Gas Insert	Approved	Infra Platforms & Services	SAP CCS BACK OFFICE	Cx&T-IT-Core App Platforms-SAP	200	34,096
243	2/28/2023	DMND0194460	enhancement	MPSC Bill Insert Waste Elimination on Second Copy Rebills	Submitted		SAP CCS BACK OFFICE	Creative Services and Communications	-	-
244	2/28/2023	DMND0194461	enhancement	Unifier - Enhancements	Submitted		SAP CCS BACK OFFICE	Creative Services and Communications	-	-
245	3/1/2023	DMND0194566	Enhancement	Sub-domain creation for Local Gov't Benchmarking pilot	Approved	Energy Combined	Unifier	Technology Portfolio Management	122	46,158
246	3/7/2023	DMND0194905	Enhancement	AppCurr E&GS Unifier P6 upgrade	Screening	Customer	IT CUST PROGRAMS - Transporta	Cx&T-Product Innov Bus Pilots	-	-
247	3/8/2023	DMND0195023	Enhancement	Form 1676 process and/or collection of 671 HPM & 676 Reg std	Approved	Energy Combined	Unifier	Technology Portfolio Management	1,211	156,877
248	3/8/2023	DMND0195103	enhancement	CONNECT PORTAL: Updates to Master Template for Provisioning	Submitted		SAP WORK MANAGEMENT	Cx&T-IT-Work and Asset Management	-	-
249	3/13/2023	DMND0195368	Enhancement	Connect Sites	Qualified	Corporate	Connect	P&C-Workforce Planning & Analytics	28	2,076
250	3/20/2023	DMND0195715	Enhancement	Changes to Gas GIS Web Viewer	Qualified	Electric	GIS Web Locator and Viewer	GE&S/Gas Asset Information	63	5,824
251	3/21/2023	DMND0195825	Enhancement	ADMS - OMS Home	Approved	Electric	ADMS	Technology Portfolio Management	1,071	76,082
252	3/21/2023	DMND0195833	Enhancement	ADMS - Outage Apps (Storm Hub)	Approved	Electric	ADMS	Technology Portfolio Management	620	45,151
253	3/22/2023	DMND0195904	enhancement	Customizable Return Address for Certain Bills in SAP Batch Billing Auto Submission to DebtNext (180 file) once bankruptcy is removed from an account	Submitted		SAP CCS BACK OFFICE	OP-Product Implementation-II	-	-
254	3/24/2023	DMND0196012	enhancement	OpenText - High Availability	Submitted		SAP CCS COLLECTIONS	Cx&T-Revenue Ops & Assistance	-	-
255	3/27/2023	DMND0196096	Enhancement	Tibco API Exchange Gateway Replacement	Qualified	Infra Platforms & Services	OpenText Administration Client	Cx&T-IT-Core App Platforms-SAP	600	108,787
256	3/27/2023	DMND0196118	Enhancement	Automation/Update of ZEOEMV SAP Transaction	Qualified	App Platforms & Services	TIBCO ESB	Cx&T-IT-Enterprise Middleware	688	67,422
257	3/29/2023	DMND0196232	enhancement	Sync Issues between Endeavor and SAP	Submitted		SAP CCS BACK OFFICE	Cx&T-Quality & Data Systems	-	-
258	3/30/2023	DMND0196300	Enhancement	Sample data from service Suite for productivity report	Approved	Customer	SAP CCS BACK OFFICE	Cx&T-IT-Contact Center and Digital Ops	888	45,657
259	4/10/2023	DMND0196779	enhancement	Extract data from Power BI Service	Submitted		Service Suite	OP-Analytics Products	-	-
260	4/14/2023	DMND0197065	Enhancement	IVR - authentication design change	Qualified	Customer	Power BI	CXCO Customer Data Analytics	-	6,810
261	4/14/2023	DMND0197075	enhancement	Add service type variable to T973 and T783	Submitted		Genesys IVR	Cx&T-Cust Ops Projects & Support	-	-
262	4/17/2023	DMND0197131	Enhancement	Update to CE.Com enrollment process for ACPC and H2O DR Programs	Screening	Corporate	SAP CCS BACK OFFICE	Creative Services and Communications	-	-
263	4/17/2023	DMND0197166	Enhancement	Ebill and Outage files load testing for KUBRA upgrade	Approved	Customer	IT CUST PROGRAMS - Demand Si	Cx&T-Product Innov Bus Pilots	150	12,805
264	4/20/2023	DMND0197381	Enhancement	Add the logic to ZSCR260_PCARD_TRANS to allow filtering of supervisor pern	Approved	Customer	SAP CCS FRONT OFFICE	Rev Ops - Energy Assistance & Payment Pr	49	3,258
265	4/24/23	DMND0197483	Enhancement	Automated process to validate results after SAP transports are imported.	Screening	Electric	SAP ERP FINANCE	WM&CD-SW Zone-BCK/COLD/HAS/MAR	125	9,928
266	4/24/23	DMND0197500	Enhancement	Add column to SQM survey file that is sent to SQM.	Approved	App Platforms & Services	SAP	Cx&T-IT-SAP Dev Standards	1,718	57,641
267	4/26/23	DMND0197604	Enhancement	Metadata Pull Automation	Approved	Customer	Genesys IVR	Cx&T RP TECH	146	10,975
268	4/28/23	DMND0197681	Enhancement	Migrate legal files into legal file area in TIM.	Approved	Customer	SAP CCS BACK OFFICE	Cx&T-IT-Cust-Rates Rev Gen & Collect	241	10,331
269	5/1/23	DMND0197736	Enhancement	Updating default task list under the Make Ready priority	Screening	Corporate	Total Information Management (	DGC-Transactions & Employment	10	794
270	5/1/23	DMND0197746	enhancement	WEH 9878: Automate adding new operation to order	Screening	Electric	SAP WORK ORDERS	Network Attachments	-	-
271	5/1/23	DMND0197746	enhancement	Microsoft 365 External Third Party Sharing Request	Submitted		SAP WORK ORDERS	GO-Gas Scheduling SE	-	-
272	5/1/23	DMND0197747	enhancement	Create standard library of Powerpoint macros	Submitted		Real Estate Questions	Real Estate-Proj Controls	-	-
273	5/3/23	DMND0197817	enhancement	DocuSign OKTA Integration	Submitted		DocuSign for Outlook	Corporate Strategy	-	-
274	5/4/23	DMND0197839	Enhancement	Add more MATs for Emplifi Customer Surveys	Qualified	Corporate	SAP WORK MANAGEMENT	Cx&T-IT-Corporate Product Family	-	16,047
275	5/8/23	DMND0197913	Enhancement	Need a way to identify repeat work orders in Endeavor	Qualified	Customer	SAP CCS FRONT OFFICE	Cx&T-Customer Research	-	7,838
276	5/9/23	DMND0197981	enhancement	Legal Phone Collection Forensic Tool	Submitted		SAP CCS FRONT OFFICE	Cx&T-Home & Ind Mat Logistics & Inv Mgmt	-	-
277	5/9/23	DMND0198059	Enhancement	Create Storm Responder Program Board "Circuit Restoration Coordinator"	Qualified	Corporate	Security	Cx&T-IT-CPF-Corporate Shared Products	1,719	66,203
278	5/10/23	DMND0198102	enhancement	Link put into every sap order even emerg	Submitted		ADMS	Incident Management	-	-
279	5/16/23	DMND0198375	Enhancement	Request for Gas emergency over 60 minute flag in Service Suite	Screening	Electric	Service Suite	EO-LVD-WEST-ZONE 5-BENZIE	-	-
280	5/18/23	DMND0198585	Enhancement	Comments should post to Wage or Absence type entries from a WAT entry in FSS	Screening	Gas	Service Suite	GO-Gas Dispatch SE A	60	4,765
281	5/18/23	DMND0198589	Enhancement	GALT REL Order/MAT Type Change Request	Qualified	Energy Combined	SAP WORK ORDERS	Operations Software & Technology	-	19,200
282	5/19/23	DMND0198655	Enhancement	Limiting Access to Gas Emergency Acknowledgements	Qualified	Gas	SAP WORK ORDERS	GO-Gas Distribution-North-Zone-2D	-	26,474
283	5/19/23	DMND0198656	Enhancement	Add Headquarter to Dispatch Emergency Acknowledgement pop up in Service Suite	Screening	Gas	Service Suite	GO-Gas Dispatch	-	-
284	5/19/23	DMND0198657	Enhancement	Automate timesheet premiums via Service Suite, SS/SAP Interface or SAP HR Module	Screening	Gas	Service Suite	GO-Gas Dispatch NE	-	-
285	5/19/23	DMND0198661	enhancement	GCCP DIW Inspection Manager Changes- Leak Tracking (Vendor Work)	Submitted		SAP WORK ORDERS	Operations Software & Technology	-	-
286	5/19/23	DMND0198691	Enhancement	Distribution Regulation enhancement for WAM with Inspection Manager	Approved	Gas	Inspection Manager - GCC	GE&S/GAM/Sl/DIMP-Reg Mgmt & DIMP Opt.	20	5,096
287	5/26/23	DMND0199008	Enhancement	Create a Malfunction form in Service Suite	Screening	Gas	SAP WORK ORDERS	Go-Gas Dist-Regulation-Statewide	-	-
288	5/26/23	DMND0199015	enhancement	MTS phase 2: Add "inspection pass or fail" field to C&I meter completion form	Submitted		Service Suite	GO-Gas Service-Southeast C4	-	-
289	5/26/23	DMND0199016	enhancement	Phase 2 MITS Automation - Update maintenance plan on exchange/replace job	Submitted		SAP WORK ORDERS	GO-Gas Service-Southeast C4	-	-
290	5/26/23	DMND0199017	Enhancement	Remove message from gas new business order/mat types	Screening	Gas	SAP WORK ORDERS	GO-Gas Service-Southeast C4	-	-
291	6/1/23	DMND0199093	Enhancement	Build a report to send email to employees for 'In Process' timesheet recor	Qualified	Gas	Service Suite	Technology Portfolio Management	-	13,200
292	6/6/23	DMND0199256	Enhancement		Approved	Corporate	SAP ERP PAYROLL	Payroll & Payroll Processing	538	16,919

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
Enhancement Worklist Detail
Information Technology
For Years 2016 Through October 21, 2024
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Line No.	(a) Open Date	(b) Number	(c) Type	(d) Description	(e) State	(f) Portfolio	(g) Configuration Item	(h) Requestor Department	(i) Total Estimated Hours	(j) Planned Cost
293	6/6/23	DMND0199324	Enhancement	Create a workflow for new equipment requests/installs in data centers	Approved	Electric	ADMS	Technology Portfolio Management	371	29,585
294	6/7/23	DMND0199381	Enhancement	ConsumersEnergy.com Forestry Requests	Approved	Customer	Consumers Web Site	CX&T-Digital Operations	303	16,715
295	6/8/23	DMND0199424	enhancement	Disconnect/Reconnect p	Submitted		SAP CCS FRONT OFFICE	Exp Design Utility Services	-	-
296	6/13/23	DMND0199626	Enhancement	Excavators are not able to see the comments left by Gas Transmission locat	Screening	Gas	SAP WORK MANAGEMENT	OCC-Dam Prev & PSO	-	-
297	6/15/23	DMND0199804	Enhancement	Voluntary Green Pricing Programs Billing Automation - LCREP Automation	Approved	Customer	SAP CCS BACK OFFICE	Rates & Reg-Rate Administration	1,544	152,733
298	6/19/23	DMND0199896	Enhancement	ServiceNow form that would prompt CEVA to ask for printer detail	Approved	Infra Platforms & Services	ServiceNow	CX&T-IT-IP&S-IT Device Purch & Deploy	80	3,911
299	6/19/23	DMND0199900	enhancement	new 800s assigned for marketing initiatives	Submitted		Genesys IVR	CX&T SCC-CCC Policy & Procedures	-	-
300	6/23/23	DMND0200102	Enhancement	GAAP Financial Reporting Work for Controllers office	Qualified	Corporate	Power BI	CX&T-IT-Corporate Product Family	-	-
301	7/13/23	DMND0200724	Enhancement	TotSum (actual) field on SAP work order not populating	Screening	Gas	SAP WORK MANAGEMENT	GO-Gas Asset Reliability Management	-	-
302	7/20/23	DMND0201004	enhancement	Change Default Lock Reason in CRM from Assistance to Blank	Submitted		SAP CCS FRONT OFFICE	CX&T-CO Strategy Support	-	-
303	7/26/23	DMND0201061	Enhancement	LIMS - Update Citrix Procurement Request	Approved	Energy Combined	LIMS NDT	Technology Portfolio Management	38	3,060
304	7/26/23	DMND0201181	Enhancement	Current Occupant Disconnection Document issues.	Qualified	Customer	SAP CCS FRONT OFFICE	DCO-Rev Ops-Credit Operations	212	13,520
305	7/26/23	DMND0201212	Enhancement	SAP Exception - Business Unit Invalid - Auto correction	Screening	Work Management	SAP WORK ORDERS	Operations Software & Technology	-	-
306	7/26/23	DMND0201213	enhancement	Gas leak orders modification needed	Submitted		SAP WORK MANAGEMENT	GO-Gas Service-Southeast A4	-	-
307	7/31/23	DMND0201309	Enhancement	Produce Detail of Estimates which ties to AMI Billable Orders Report	Qualified	Customer	SAP CCS BACK OFFICE	CX&T-Customer Billing B	102	6,155
308	7/31/23	DMND0201321	enhancement	Replace Auto Updater and Attribute Inheritance with Attribute Assistant in GIS	Submitted		SIMSWeb	GE&S/Gas Asset Info/Gas Distribution	-	-
309	8/3/23	DMND0201506	enhancement	2023 Clarity Enhancement	Approved	Corporate	Clarity	CX&T-IT-CPF-Corporate Shared Products	305	16,179
310	8/7/23	DMND0201585	Enhancement	ArcGIS Mobile Worker Licenses	Screening	Electric	ArcGIS	Electric GIS	-	-
311	8/7/23	DMND0201590	Enhancement	SAP/Field Service Suite changes to prevent ODR Sniff test erroneous submis	Qualified	Gas	SAP WORK MANAGEMENT	GE&S/GAM/SI/OIMP-Reg Mgmt & DIMP Opt.	-	56,962
312	8/15/23	DMND0201792	Enhancement	Notification accidental closure auto fix - Put in process when order is RWRK/RSC	Screening	Energy Combined	SAP WORK MANAGEMENT	Operations Software & Technology	-	-
313	8/16/23	DMND0201902	Enhancement	Utilize Citrix to publish applications - GIS WebViewer and CRM7	Approved	Electric	Citrix	CX&T-IT-S&G-Strategy E&A	26	2,139
314	8/22/23	DMND0202067	Enhancement	Wireless Connectivity support optimization	Approved	Energy Combined	WIRELESS	Technology Portfolio Management	55	44,924
315	8/22/23	DMND0202076	enhancement	New Query Project	Submitted		SAP CCS BACK OFFICE	IT-D&A Services-Data Architects	-	-
316	8/29/23	DMND02020414	Enhancement	LNDC order type, status profile updated	Qualified	Electric	SAP WORK MANAGEMENT	Real Estate-Proj Controls	109	7,216
317	8/30/23	DMND02020482	Enhancement	Update Workflow to eliminate daily EG32 Electric removal failures.	Screening	Work Management	SAP WORK ORDERS	OP-Smart Energy Operations A	-	-
318	8/30/23	DMND02020486	Enhancement	Power BI Extract for Server Refresh Status	Approved	Energy Combined	Business Object Client tools	OP-Agile Analytics II	130	7,295
319	8/30/23	DMND02020490	Enhancement	EMITS Improvement	Qualified	Energy Combined	SAP WORK MANAGEMENT	EO-Elec Meter Ops	-	100,000
320	8/31/23	DMND02020503	Enhancement	Create ability to log storm reason codes for Dispatch Back to Pending Acti	Qualified	Electric	SAP WORK ORDERS	EO-LVD-West	331	22,100
321	9/5/23	DMND02020571	enhancement	Police/Fire Hazard Dashboard ETA Functionality	Submitted		ADMS	Incident Management	-	-
322	9/5/23	DMND02020574	enhancement	Add a Further Action Box in the Referral Tab of the Mobile App of Service Suite	Submitted		SAP WORK MANAGEMENT	OP-Digital Products-I	-	-
323	9/5/23	DMND02020575	Enhancement	Update SAP Order Operations with "Not Needed" Option for Bore & Welding Op	Screening	Work Management	SAP WORK MANAGEMENT	WM&CD-SE Dist Sched South	-	-
324	9/5/23	DMND02020578	enhancement	Flag jobs referred back as "safety" so they are not sent out til issue is checke	Submitted		Service Suite	GO-Gas Service-Southeast C5	-	-
325	9/5/23	DMND02020579	enhancement	Waste Elimination: Remove or Reduce SAP Orders printing on the SHP in Dispatch	Submitted		SAP WORK MANAGEMENT	ED GM-LVD Dispatch-GR A	-	-
326	9/5/23	DMND02020583	enhancement	Gap was identified in CatCrewing having all of the WG and WE	Submitted		Catastrophic Crewing - CatCrew	EO-Elec Meter Ops	-	-
327	9/14/23	DMND02020837	enhancement	contact information	Submitted		SAP CCS BACK OFFICE	Rev Ops - Energy Assistance & Payment Pr	-	-
328	9/21/23	DMND02030508	enhancement	Change "direct pay" wording on customer bills	Submitted		Unifier	Technology Portfolio Management	-	-
329	9/28/23	DMND0203272	Enhancement	Unifier - Actuals Integration with SAP	Submitted		Unifier	CX&T-IT-CEO-Proj Mgmt	252	7,500
330	9/28/23	DMND0203283	Enhancement	Smartops Work Automation	Qualified	Customer	SAP CCS BACK OFFICE	CX&T-Cust Ops Projects & Support	-	-
331	10/3/23	DMND0203365	Enhancement	Voxai - IVR changes to emergency menus	Screening	Customer	SAP CCS FRONT OFFICE	CX&T-Cust Ops Projects & Support	-	-
332	10/3/23	DMND0203366	Enhancement	Enable supervisors ability to edit employee timesheets in MSS_1470	Approved	Corporate	SAP ERP PAYROLL	CX&T-IT-CPF-P&C	531	62,818
332	10/3/23	DMND0203366	Enhancement	Mobile ESS_1470	Approved	Corporate	SAP ERP PAYROLL	CX&T-IT-CPF-P&C	1,118	156,580
333	10/5/23	DMND0203459	Enhancement	Legal Operations would like to explore software solutions for Legal Hold	Approved	Corporate	Legal Hold Pro	DGC-Litigation Practice Area	395	24,558
334	10/9/23	DMND0203513	enhancement	Add DLOC_GAS, DLOC_ELEC and DLOC_APPL to E566 Device Location	Submitted		SAP WORK ORDERS	Distribution Engineering Office	-	-
335	10/9/23	DMND0203515	enhancement	Transaction in SAP	Submitted		Service Suite	GO-GCON-Resource Mgmt- D	-	-
336	10/11/23	DMND0203555	enhancement	FSS DA Manual Sequencing	Submitted		IT CUST PROGRAMS - Demand Si	CX&T-IT-CEO-Proj Mgmt	-	-
337	10/12/23	375664	Enhancement	Changes needed to tcde ZSYNC_OPERAND	Submitted		Implement Application Control in DMZ	Security	300	187,500
338	10/12/23	375667	Enhancement	Encrypt USB - Removable Device Protection	Submitted		Security	Security	100	32,500
339	10/12/23	375670	Enhancement	Implement Application Control in DMZ	Submitted		Security	Security	100	12,500
340	10/12/23	375671	Enhancement	Test MDE for Android and IOS	Submitted		Security	Security	100	12,500
341	10/12/23	375676	Enhancement	VDR (Vulnerability Disclosure Program) Database	Submitted		Security	Security	100	12,500
342	10/12/23	375679	Enhancement	MOCA Managed Apps	Approved		Security	Security	60	7,500
343	10/12/23	375681	Enhancement	Run Infection Monkey	Screening		Security	Security	80	10,000
344	10/12/23	375682	Enhancement	Logging in Generation	Submitted		Security	Security	400	85,000
345	10/12/23	375682	Enhancement	OT Server Hardening Process review	Submitted		Security	Security	100	12,500
346	10/12/23	375683	Enhancement	OT Firewall/Switch Hardening Process Review	Submitted		Security	Security	100	12,500
347	10/12/23	375686	Enhancement	Consider Explicit Deny Policy for Certain Services	Submitted		Security	Security	80	10,000
348	10/12/23	375687	Enhancement	CIS Control 9.2 - DNS Filtering	Submitted		Security	Security	80	10,000
349	10/12/23	375688	Enhancement	CIS 9.3 - Maintain and Enforce Network Based URL Filters	Submitted		Security	Security	150	18,750
350	10/12/23	375689	Enhancement	CIS 8.12 - Collect Service Provider Logs	Submitted		Security	Security	100	12,500
351	10/12/23	375690	Enhancement	CIS 9.5 - Implement DMARC/DKIM/SPF	Submitted		Security	Security	100	12,500
351	10/12/23	375691	Enhancement	CIS 13.5 - Manage Access Control for Remote Assets	Submitted		Security	Security	120	15,000
352	10/12/23	375692	Enhancement	CIS 2.5,2.6,2.7 - Allowlist Authorized Software, Allowlist Authorized Libraries, Allowlist Authorized Scripts	Submitted		Security	Security	450	306,250
353	10/12/23	375793	Enhancement	STORM - Privacy Incident Tracking (Ticket/Workflow)	Submitted		Security	Security	150	18,750
354	10/12/23	375795	Enhancement	Playbook to Sever CE Internet Connectivity	Approved		Security	Security	150	18,750
355	10/12/23	375800	Enhancement	Island Protocol Playbook	Submitted		Security	Security	180	22,500
356	10/12/23	375801	Enhancement	Assign Frequent Caller Training	Submitted		Security	Security	120	15,000
357	10/12/23	375802	Enhancement	KPMG Source Code Finding	Submitted		Security	Security	150	18,750
358	10/12/23	375803	Enhancement	New Employee Playbook (NEP) Reporting Automation	Submitted		Security	Security	480	60,000
359	10/12/23	375804	Enhancement	Improve Real Phishing Statics Tracking	Submitted		Security	Security	160	20,000
360	10/12/23	375808	Enhancement	Remove OT Managed Non-Regulatory Devices From the Cyber Asset Library in SigmaFlow (Add to ServiceNow)	Submitted		Security	Security	480	60,000
361	10/12/23	375810	Enhancement	Automate tagging of NERC CIP documents in SigmaFlow	Submitted		Security	Security	480	60,000
362	10/12/23	375811	Enhancement	Automate People data being uploaded in the People Library	Submitted		Security	Security	480	60,000
363	10/12/23	375814	Enhancement	CEVA STORM Automation Intake	Submitted		Security	Security	120	15,000
364	10/12/23	375815	Enhancement	After Action Reports	Submitted		Security	Security	480	60,000
365	10/12/23	375816	Enhancement	Emergency Management Business Continuity Dashboard	Submitted		Security	Security	160	20,000
366	10/18/23	DMND0203700	enhancement	Gateway Creation from SharePoint Online to Microsoft SQL Server	Submitted		Microsoft Power Apps (MSPA)	GE&S/GAM/SI-TIMP	-	-
367	10/24/23	DMND0203778	Enhancement	Agent Auto Assignment Module	Qualified	Infra Platforms & Services	ServiceNow	Desktop Support Jackson	106	5,163
368	10/25/23	379739	Enhancement	GP 6.2 - HIP Feature	Submitted		Security	Security	80	10,000
369	10/25/23	379760	Enhancement	Microsoft DLP Enhancements (Phase 2)	Submitted		Security	Security	480	60,000
370	11/6/23	DMND0203996	enhancement	Create database table, and automate P6 Milestone data, run weekly	Submitted		Primavera P6	EPM-Proj Controls Schedule-Gas Projects	-	-
371	11/6/23	DMND0204014	Enhancement	Print ServiceNow Email Interface to log an IT-to-IT Request	Qualified	Infra Platforms & Services	ServiceNow	CX&T-IT-IAO-Database & PCTools	68	3,340
372	11/13/23	DMND0204200	enhancement	Update to the IVR message RO6050	Submitted		SAP CCS FRONT OFFICE	Customer Strategy Performance	-	-
373	11/13/23	DMND0204218	Enhancement	Create a PowerApp to request a work order for location property.	Approved	Corporate	SAP ERP POWERPLANT - TAX	General Accounting	1,830	138,098
374	11/27/23	DMND0204378	Enhancement	Emergent Work on improving the reliability and performance of the ISIS Pla	Approved	App Platforms & Services	ISIS	CX&T-IT-Enterprise Applications	4,668	359,229
375	11/29/23	DMND0204408	Enhancement	Prevent mischarging orders on manual time entry on service suite timesheets	Screening	Gas	Service Suite	GO-Gas Service-Southeast C4	-	-
376	11/29/23	DMND0204421	Enhancement	Create a flag in SAP for marking accounts with a PPA	Qualified	Gas	SAP CCS BACK OFFICE	EO-Elec Meter Ops	-	-
377	12/5/23	DMND0204469	Enhancement	Enhance Workflow to stop duplicate meter stand orders created.	Qualified	Gas	SAP WORK MANAGEMENT	GO-Gas Service-Southeast C4	184	12,014
378	12/5/23	DMND0204476	Enhancement	Print EU LED and GUL on one invoice	Screening	Customer	SAP CCS BACK OFFICE	Rates & Reg-Rate Administration	-	-
379	12/5/23	DMND0204484	Enhancement	No Schema Extension errors - need to generate an emma case	Screening	Customer	SAP CCS BACK OFFICE	CX&T-Customer Billing B	-	-
380	12/6/23	DMND0204515	Enhancement	2024 MPSC Rate Changes	Approved	Customer	SAP CCS BACK OFFICE	CX&T-IT-CEO-Proj Mgmt	7,492	449,811
381	12/14/23	DMND0204690	enhancement	TMD issue	Submitted		SAP CCS BACK OFFICE	EO-Smart Energy Operations B	150	11,913
382	12/19/23	DMND0204788	Enhancement	RNG Voluntary Program Billing Architecture	Approved	Customer	SAP CCS BACK OFFICE	CX&T-Residential Renewables	1,879	197,668
383	12/20/23	DMND0204797	enhancement	Environmental Work Orders to PowerBI	Submitted		eOMS	Compliance/EMS	-	-
384	1/2/24	DMND0204862	Enhancement	AutoSol Upgrade	Qualified	GAS	AutoSol	CX&T-IT-S&G-Strategy E&A	-	-
385	1/3/24	396368	Enhancement	STORM 8 Migration	Submitted		Security	Security	480	95,000
386	1/3/24	DMND0204877	Enhancement	Create a report of failures and success for	Screening	Gas	SAP WORK MANAGEMENT	OCC-Dam Prev & PSO	-	-
387	1/4/24	DMND0204909	enhancement	TEAM, BTH, WORK, ITEM, UPLOAD	Submitted		MISSING CI	EO-Lines Const & Main South & West	-	-
388	1/8/24	DMND0204932	Enhancement	Shared Outlook or Teams Calendar to share w/outside contractor	Screening	Gas	Service Suite	Cx&T-IT-Work and Asset Management	-	-
389	1/9/24	DMND0204961	Enhancement	Gas Meter Set - Did you rebuild the stand	Screening	Gas	SAP TIMESHEET IDOCs	Cx&T-IT-Work and Asset Management	-	-
390	1/9/24	DMND0204961	Enhancement	Daily Cascade Timesheet Program for Success/Failure posting report	Screening	Gas	SAP TIMESHEET IDOCs	Cx&T-IT-Work and Asset Management	-	-

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390	1/9/24	DMND0204990	enhancement	Add Battle Creek city-owned lights on SOAR map with city dpyw number listed	Submitted		SAP CCS FRONT OFFICE	Exp Design Utility Services	-	-
391	1/10/24	DMND0205033	Enhancement	Fidelity Administration (Restricted Stock) moving from Equity	Approved	Corporate	ZHRPYO_FIDELITY_DEMOG_OUT	P&C HR Information Systems	1,131	118,030
392	1/11/24	DMND0205064	enhancement	Create a new Operand in SAP for PPAs Attachments viewed in CRM7 as well as SAP Back office even prior to orders FCMF	Submitted		SAP CCS BACK OFFICE	Wholesale Settlements	-	-
393	1/11/24	DMND0205119	Enhancement	GCCP 2024 Service Leak Survey - SRVY123 AGOL & DNV Import Tool	Screening	Electric	SAP WORK MANAGEMENT	EO-Elec Mtr Ops-Zone 7	-	-
394	1/17/24	DMND0205213	enhancement	Updates	Submitted		Inspection Manager - GCC	GE&S/GAM/SI/DIMP-Reg Mgmt & DIMP Opt.	-	-
395	1/23/24	DMND0205357	enhancement	C&I - Capital changes for 2024	Submitted		SAP WORK MANAGEMENT	Cx&T-IT-Work and Asset Management	-	-
396	1/24/24	DMND0205409	Enhancement	GRIP Grant SAP & Service Suite Changes	Qualified	Gas	SAP WORK MANAGEMENT	Cx&T-IT-Work and Asset Management	-	294,182
397	2/1/24	DMND0205691	enhancement	Transition Complaints Team from Avaya phones to Genesys WDE SIP end point	Submitted		SAP CCS FRONT OFFICE	Cx&T SCC-CCC Policy & Procedures	-	-
398	2/5/24	DMND0205708	Enhancement	FCS application from 4.5.3 to 4.6.2	Approved	Electric	Iron FCS	Technology Portfolio Management	1,005	67,771
399	2/5/24	DMND0205714	Enhancement	Upgrade eDNA	Approved	Gas	eDNA	Cx&T-IT-E&GS-OT-Critical Applications	87	5,472
400	2/5/24	DMND0205715	Enhancement	Upgrade Citect to latest supported version	Approved	Gas	OT AVEVA Historian	Cx&T-IT-E&GS-OT-Critical Applications	124	7,802
401	2/5/24	DMND0205730	Enhancement	Upgrade Aveva PI to 2018 SP3	Approved	Gas	PI EDH	Cx&T-IT-E&GS-OT-Critical Applications	417	26,248
402	2/6/24	DMND0205743	enhancement	PIR/PID link to be resent to accounts after MIMO	Submitted		SAP CCS FRONT OFFICE	Cx&T-IT-Contact Center and Digital Ops	-	-
403	2/6/24	DMND0205745	Enhancement	2 Ideas - ZEAMRMTS and Pulse Constant	Qualified	Electric	Service Suite	EO-Elec Mtr Ops-Zone 7	143	21,514
404	2/12/24	DMND0205927	Enhancement	Need to Modify CAP Report	Approved	Customer	SAP CCS BACK OFFICE	CX&T BCC-Bus Solutions	18	1,997
405	2/15/24	DMND0206010	Enhancement	Add middle initial to names within Riskconnect BC&R Application	Qualified	Corporate	ServiceNow	Emergency Mgmt & Public Safety	25	1,232
406	2/19/24	DMND0206114	Enhancement	Foglight Upgrade for 2024	Approved	App Platforms & Services	Foglight for Oracle - DBA	Cx&T-IT-Core App Platforms-SAP	239	28,800
407	2/19/24	DMND0206115	Enhancement	RMAN and OEM Upgrade for 2024	Approved	App Platforms & Services	DOEMP020@prmin0129	Cx&T-IT-Core App Platforms-SAP	218	25,920
408	2/19/24	DMND0206128	Enhancement	Implement ServiceNow - Service Graph Connector for Runzero	Qualified	Corporate	ServiceNow	Cx&T-IT-S&G-Asset Management	134	6,571
409	2/20/24	DMND0206129	Enhancement	SAP Planning Plant Table Update Needed	Qualified	Gas	SAP WORK MANAGEMENT	OCC-Dam Prev & PSO	-	6,660
410	2/20/24	DMND0206148	Enhancement	Azure OpenAI Non-Prod and Prod Landscapes	Qualified	App Platforms & Services	CE-Azure-Prod	Cx&T-IT-Development Standards	1,642	96,259
411	2/20/24	DMND0206168	enhancement	Time Approval (MSS) Facelift and Performance	Submitted		SAP ESS/MSS	Cx&T-IT-CPF-P&C	-	-
412	2/20/24	DMND0206171	enhancement	Time Entry (ESS) Facelift and Performance	Submitted		SAP ESS/MSS	Cx&T-IT-CPF-P&C	-	-
413	2/20/24	DMND0206178	Enhancement	Update bypass completion automation for GMTR RPL and GMTR NEM orders	Screening	Gas	SAP WORK MANAGEMENT	GO-Gas Service-Southeast C4	-	-
414	2/21/24	424472	Enhancement	PAM Program Maturation: Discovery (ce.corp.com, DMZ.cms, and corp.com)	Submitted	Security	Security	Security	200	37,000
415	2/21/24	DMND0206190	Enhancement	7202 - Automating A2-s into GCon Property Restoration	Qualified	Gas	GCON Property Restoration	Cx&T-IT-Work and Asset Management	453	72,892
416	2/22/24	425504	Enhancement	Vulnerability Management Data in the Lake	Submitted	Security	Security	Security	80	10,000
417	2/26/24	DMND0206377	Enhancement	573 Enlighta Remediation	Approved	Electric	Enlighta Govern	Cx&T-IT-S&G-Strategy E&A	878	53,982
418	2/26/24	DMND0206378	Enhancement	Create an application to track MISS DIG Concerned Caller requests	Screening	Gas	SAP WORK MANAGEMENT	OCC-Dam Prev & PSO	-	-
419	2/27/24	DMND0206413	Enhancement	Natural Gas Outage Tag option in SAP for CSR.	Qualified	Gas	SAP WORK MANAGEMENT	GO-Gas Service-Southwest A1	-	58,233
420	2/28/24	DMND0206484	Enhancement	Power Platform Improvements	Qualified	App Platforms & Services	Microsoft Power Apps (MSPA)	Cx&T-IT-Development Standards	-	72,365
421	2/29/24	DMND0206550	Enhancement	Mobile App General O&M (not related to capital release work)	Approved	Customer	N/A	CX&T-Digital Operations	20	40,000
422	3/1/24	DMND0206577	enhancement	FACTA Automation	Submitted		CRM7	Cx&T-IS Revenue Assurance Fraud	-	-
423	3/4/24	DMND0206616	Enhancement	Automation of CSR time sheets	Approved	Customer	Genesys Framework	Cx&T-Cust Ops Projects & Support	770	35,000
424	3/6/24	DMND0206682	enhancement	CE Tools - Dimension change	Submitted		CE Tools	Technology Portfolio Management	-	-
425	3/7/24	DMND0206714	Enhancement	Add CISX KEV References to SNVR Module	Qualified	Security	ServiceNow	Cx&T-Security-Security Infra & Delivery	182	8,918
426	3/8/24	DMND0206764	enhancement	Modify ZBI_TOU_REPORT parameters for monthly TOU Report performed manually curre	Submitted		SAP CCS BACK OFFICE	Cx&T-Customer Billing B	-	-
427	3/8/24	DMND0206781	enhancement	Bill message needs added to the bill when an interim read is present	Submitted		SAP CCS BACK OFFICE	Cx&T-Customer Billing Res	-	-
428	3/12/24	DMND0206835	enhancement	Data Needed for U-20959	Submitted		SAP CCS BACK OFFICE	CXCO Customer Data Analytics	-	-
429	3/14/24	DMND0206927	Enhancement	Oracle Java to Azul Java Migration	Approved	Infra Platforms & Services	Windows7 Java	Cx&T-IT-Core App Platforms-SAP	4,928	342,433
430	3/18/24	438036	Enhancement	Beacon	Submitted		Security	Security	160	35,000
431	3/18/24	DMND0206963	Enhancement	Implement New Personalization Rules	Qualified	Customer	Consumers Web Site	Cx&T-Digital Operations	92	5,151
432	3/19/24	DMND0206979	enhancement	Streelight self service - ability for customers to see status when notification created in SAP	Submitted		SAP CCS FRONT OFFICE	Cx&T - Experience & Portfolio Performanc	-	-
433	3/20/24	DMND0207051	Enhancement	SNOW License Manager Decommission	Approved	Corporate	Snow License Manager	Cx&T-IT-Corporate Product Family	127	8,955
434	3/21/24	DMND0207086	enhancement	Add new entities (Branch, Genesee, Lake Iris) to the consol hierarchy and SAP	Submitted		SAP ERP FINANCE	Consolidated Accounting	-	-
435	3/28/24	441115	Enhancement	CSIRT POBOX Monitoring and Ticket Generation	Submitted	Security	Security	Security	60	7,500
436	4/1/24	DMND0207280	enhancement	New brand font pushed to all employees	Submitted		Microsoft Office	Brand & Creative Services	-	-
437	4/1/24	DMND0207292	enhancement	SAP New Postcard - Undergrounding	Submitted		CRM7	Creative Services and Communications	-	-
438	4/2/24	DMND0207345	Enhancement	SAP unassigned staking orders	Qualified	Gas	SAP WORK MANAGEMENT	GE&S-Damage Prev West	160	14,940
439	4/4/24	DMND0207416	Enhancement	P6 - Data Table	Approved	Electric	Primavera P6	Technology Portfolio Management	88	5,451
440	4/5/24	DMND0207456	Enhancement	MyEnergyXperPilot	Approved	Customer	SAP CCS BACK OFFICE	Cx&T-IT-CEO-Proj Mgmt	270	16,872
441	4/5/24	DMND0207461	Enhancement	ServiceNow ITOM Health - Deploy an Automated End-to-End Ops Workflow	Qualified	Corporate	ServiceNow	Cx&T-IT-IP&S-Monitoring	339	123,556
442	4/9/24	444595	Enhancement	Sensitive (medium risk) data detection in email	Submitted	Security	Security	Security	80	10,000
443	4/9/24	444598	Enhancement	Automate Bi-weekly Vendor Access Review	Submitted	Security	Security	Security	400	50,000
444	4/10/24	DMND0207592	Enhancement	Aligne Fuels - Upgrade	Approved	Electric	Fuel Management System (FMS)	Technology Portfolio Management	125	9,821
445	4/10/24	DMND0207613	Enhancement	Online W2 - Payroll Automation	Approved	Corporate	SAP ERP PAYROLL	P&C HR Information Systems	339	48,523
446	4/11/24	DMND0207624	enhancement	New SAP-Business Reporting Needs for Mandated MPSC Reporting Changes	Submitted		reporting	CXCO Customer Data Analytics	-	-
447	4/11/24	DMND0207634	Enhancement	Virtual Proctoring	Screening	Electric	Gas Operator Qualification	Cx&T-IT-S&G-Strategy E&A	-	-
448	4/15/24	DMND0207724	Enhancement	App Currency - WinEst	Approved	Electric	Winest	Technology Portfolio Management	120	9,467
449	4/16/24	DMND0207727	Enhancement	App Currency - LIMS	Approved	Electric	Limis Chemistry	Technology Portfolio Management	60	5,229
450	4/16/24	DMND0207755	Enhancement	Savint Integration with ServiceNow for NERC CIP Compliance	Qualified	Security	ServiceNow	Cx&T-Security-Identity Orchestration	146	7,118
451	4/23/24	DMND0207901	Enhancement	Credential Check and SuccessFactor Integration	Approved	Corporate	Workforce Connect (SuccessFactor)	P&C HR Technologies	51	5,365
452	4/24/24	DMND0207932	Enhancement	Mass Order Creation SAP Transaction Modification	Screening	Work Management	SAP WORK MANAGEMENT	EO-Smart Energy Operations B	-	-
453	4/25/24	DMND0207999	Enhancement	Planning Group Field, FSS Communication Loop w/ SAP	Qualified	Work Management	SAP WORK MANAGEMENT	EO-Forestry HVD/T&S Inspect&Work Plan	-	7,352
454	4/26/24	DMND0208033	Enhancement	New Integration from SAP to MarketPay	Approved	Corporate	MarketPay	P&C HR Information Systems	435	63,213
455	4/29/24	DMND0208062	Enhancement	Maintain Link Data between Service Suite and SAP Work Order	Qualified	Gas	SAP WORK ORDERS	Cx&T-IT-Work and Asset Management	-	70,109
456	4/30/24	DMND0208109	Enhancement	Gas Leak automated Order creation	Approved	Work Management	SAP WORK MANAGEMENT	OP-Software Products	2,521	176,011
457	5/2/24	DMND0208154	enhancement	Update to My Location/Searching Address marker in SOAR and Map	Submitted		Azure DevOps	Exp Design Utility Services	-	-
458	5/3/24	DMND0208182	Enhancement	Legend	Approved	Infra Platforms & Services	Windows 11	Cx&T-IT-IP&S-Client Productivity & Comp	415	29,113
459	5/6/24	458172	Enhancement	Validate defender app connectors and if we can enable	Screening	Security	Security	Security	20	2,500
460	5/7/24	DMND0208230	Enhancement	PowerClerk & Payments Integration	Qualified	Electric	SAP CCS COLLECTIONS	Distribution Agreements & Programs	532	30,863
461	5/7/24	DMND0208244	Enhancement	SAPGUI Update v800 and latest patch	Approved	App Platforms & Services	SAP GUI - BASIS	Cx&T-IT-Core App Platforms-SAP	1,360	107,000
462	5/10/24	DMND0208329	enhancement	Update the third party damage form that is created in FSS	Submitted		MISSING CI	GE&S-Damage Claims	-	-
463	5/13/24	1337456893	Enhancement	Landlord Portal - Entire new solution	Screening	Customer	SAP CCS BACK OFFICE	Cx&T-IT-CEO-Proj Mgmt	-	819,500
464	5/13/24	1337456895	Enhancement	High bill/inability to pay automation	Screening	Customer	SAP CCS BACK OFFICE	Cx&T-IT-CEO-Proj Mgmt	-	983,400
465	5/13/24	1337456905	Enhancement	Web Dashboard Redesign	Screening	Customer	SAP CCS BACK OFFICE	Cx&T-IT-CEO-Proj Mgmt	-	819,500
466	5/13/24	1337456911	Enhancement	Low/Moderate Income Enhancements	Screening	Customer	SAP CCS BACK OFFICE	Cx&T-IT-CEO-Proj Mgmt	-	819,500
467	5/13/24	1337252489	Enhancement	Mobile App Enhancements	Submitted	Customer	SAP CCS FRONT OFFICE-old	Cx&T-Digital Operations	-	2,121,000
468	5/13/24	460464	Enhancement	Automation for SSO to see expiring certs	Submitted	Security	Security	Security	100	12,500
469	5/13/24	460467	Enhancement	OT ISE SigmaFlow Scanning	Approved	Security	Security	Security	120	15,000
470	5/13/24	DMND0208410	Enhancement	Make updates/changes to the Theft Form in FSS	Screening	Customer	Service Suite	Cx&T-RO Credit & Collection	-	-
471	5/14/24	1337856946	Enhancement	Functional Enhancements to QTD and move it to the Cloud - Quality Training Database	Screening	Electric	Electric	Electric	-	366,100
472	5/14/24	1337856991	Enhancement	Functional & Config Enhancements for ADMS (e.g. DMS 10)	Screening	Electric	ADMS	Electric	-	409,750
473	5/14/24	1337857001	Enhancement	Enhancements to various Outage Applications	Screening	Electric	Outage Management System - OI	Electric	-	338,500
474	5/14/24	DMND0208425	Enhancement	Welder Qualification DB - Upgrade	Approved	Electric	Welder Qualification System (WC)	Technology Portfolio Management	86	7,361
475	5/14/24	DMND0208448	Enhancement	Please assign to Power Automate Team - Custom API Connector	Qualified	Customer	SAP PERSONAS FACILITIES	Field Operations Support A	-	90,035
476	5/14/24	DMND0208459	Enhancement	Unifier - Connector from Power Apps Enhancement	Approved	Electric	Microsoft Power Apps (MSPA)	Technology Portfolio Management	92	7,958
477	5/15/24	DMND0208506	enhancement	Please create meter reading route numbers (MRUS) that do not exist in SAP	Submitted		SAP CCS BACK OFFICE	Operations Software & Technology	-	-
478	5/15/24	DMND0208523	Enhancement	eSOMs mobile rounds - Covert	Qualified	Electric	eSOMs	Covert Operations	-	9,345
479	5/17/24	DMND0208600	Enhancement	Gas Measurement enhancement - AutoSol	Approved	App Platforms & Services	AutoSol	Cx&T-IT-E&GS-PlanningScheduling&MeterTec	1,684	115,558
480	5/21/24	DMND0208689	Enhancement	Customer Picture Capture Enhancement	Screening	Gas	SAP WORK MANAGEMENT	Cx&T-IT-Work and Asset Management	-	-
481	5/21/24	463764	Enhancement	Azure Front Door conversion	Submitted	Security	Security	Security	150	18,750
482	5/22/24	1393257100	Enhancement	Enhancements for small changes and improvements to existing software to address requests needed due to changing business requirements.	Screening	Infra Platforms & Services	N/A	Cx&T-IT-IP&S-Monitoring	40	485,959
483	5/22/24	463781	Enhancement	Security Co-Pilot and Jamf	Submitted	Security	Security	Security	40	5,000
484	5/22/24	DMND0208739	Enhancement	CYME Upgrade Project	Approved	Electric	CYME	Electric Grid Models	556	26,392
485	5/23/24	DMND0208771	Enhancement	DevonWay - Module Updates	Approved		DevonWay	Technology Portfolio Management	1,361	78,838
486	5/28/24	DMND0208797	Enhancement	Remove the masale for bar testing from 2 new business gas order mat/types	Qualified	Gas	Service Suite	OCC-Standards Adherence & Verification	30	5,539
487	5/29/24	DMND0208820	Enhancement	GenPortal - Enhancement	Qualified	Electric	Generation Portal	Technology Portfolio Management	-	9,014
488	5/29/24	DMND0208836	Enhancement	PCI Insights Software	Screening	Electric	PowerCosts (PCI) GenTrader	Wholesale Settlements	-	-
489	6/4/24	DMND0208922	enhancement	Cost of Dataserve	Submitted		Azure Data Lake	GE&S Gas Compliance and Audit	-	-

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490	6/6/24	DMND0208986	enhancement	Gas Opt Out Fee to be added when GCM is updated out on gas only accounts	Submitted		SAP CCS BACK OFFICE	Cx&T SCC-CCC Policy & Procedures	-	-
491	6/6/24	DMND0209000	Enhancement	SCCM Application Lifecycle Management	Approved	Infra Platforms & Services	Microsoft SCCM	Cx&T-IT-IP&S-Client Productivity & Comp	192	14,330
492	6/6/24	DMND0209001	Enhancement	Windows Security Tool Application Lifecycle Management	Approved	Infra Platforms & Services	Microsoft SCCM	Cx&T-IT-IP&S-Client Productivity & Comp	147	10,294
493	6/7/24	473175	Enhancement	Entra ID Conditional Access - Customize continuous access evaluation	Screening	Security	Security	Security	20	2,500
494	6/7/24	473196	Enhancement	Enable - Entra ID token-protection	Screening	Security	Security	Security	20	2,500
495	6/11/24	473752	Enhancement	Automation - Palo Alto Device States + Monitoring	Submitted	Security	Security	Security	80	10,000
496	6/11/24	474059	Enhancement	Duo proxy URL	Screening	Security	Security	Security	80	10,000
497	6/12/24	DMND0209117	Enhancement	New catalog request form needed for cellular activations	Qualified	Infra Platforms & Services	ServiceNow	Cx&T-IT-IP&S-IT Device Purch & Deploy	87	4,244
498	6/13/24	DMND0209126	Enhancement	App Currency - ArcMap	Approved	Electric	ArcGIS	Technology Portfolio Management	54	4,432
499	6/13/24	DMND0209128	Enhancement	Move Redwood environments to vendor SaaS solution	Approved	Electric	ArcGIS Mobile	Technology Portfolio Management	205	15,681
500	6/14/24	1393357040	Enhancement	Retire OT Datacenter Hyper-V virtualization clusters; migrate workloads to VxRail	Screening	App Platforms & Services	Redwood	Cx&T-IT-Enterprise Applications	-	133,750
501	6/14/24	1393357042	Enhancement	Bitalk Retirement and Migration	Screening	App Platforms & Services	OT	OT Platforms	-	107,000
502	6/14/24	1393357080	Enhancement	Develop parallel processes and tooling to support multiple delivery paths for project and product delivery, inclusive of Change Management Process Redesign/Retooling for SOX delivery efforts. With the direction to have some teams in ADO and others in ServiceNow we need extra tooling to support both paths. Improve the ServiceNow Platform and capabilities such as cyber ark integration, Unified Portal, Operations Workspace and AI.	Screening	Corporate	ADO	Cx&T-IT-S&G-ASDO	-	237,100
504	6/14/24	1337257019	Enhancement	Update the API to include Org, Middle initial, phone	Screening	Corporate	Everbridge	Cx&T-IT-Service Now	-	260,200
505	6/14/24	1337252420	Enhancement	Updates and improvements to PowerBI & Data Lake	Screening	Corporate	ServiceNow	Emergency Management	-	7,490
506	6/14/24	1337257019	Enhancement	RunZero Service Graph Connector – One time cost of internal ServiceNow team to install: \$15,000	Screening	Corporate	ServiceNow	Cx&T-IT-Service Now	-	10,700
507	6/14/24	1337257020	Enhancement	Go Mobile with ServiceNow modules – Utilize mobile features from ServiceNow (once our subscription is updated to do so)	Screening	Corporate	ServiceNow	Cx&T-IT-Service Now	-	15,000
508	6/14/24	1337257024	Enhancement	ServiceNow IT Operations Management (ITOM) Digital Employee Experience (DEX) Subscriptions and associated Agent Client Connection (ACC) implementation	Screening	Corporate	ServiceNow	Cx&T-IT-Service Now	-	80,250
509	6/14/24	1337257027	Enhancement	ServiceNow OTM - improve OT asset inventory data in relationship to production processes and providing services	Screening	Corporate	ServiceNow	Cx&T-IT-Service Now	-	80,250
510	6/14/24	1337357035	Enhancement	ServiceNow OTSM – Technology Implementation	Screening	Corporate	ServiceNow	Cx&T-IT-Service Now	-	333,150
511	6/14/24	1337256667	Enhancement	ServiceNow APIs for OT – APIs between ServiceNow and Vendors	Screening	Corporate	ServiceNow	Cx&T-IT-Service Now	-	107,000
512	6/14/24	1337256668	Enhancement	ServiceNow demands related to administrative maintenance	Screening	Corporate	ServiceNow	Cx&T-IT-Service Now	-	10,700
513	6/14/24	1337256669	Enhancement	ServiceNow SAM Pro and related integrations Workflow Enhancements and Automations	Screening	Corporate	ServiceNow	Cx&T-IT-Service Now	-	53,000
514	6/14/24	1337256669	Enhancement	Enlighta retirement	Screening	Corporate	ServiceNow	Cx&T-IT-Service Now	-	10,700
515	6/14/24	1337256670	Enhancement	CAM ServiceNow Decommissioning workflow enhancement	Screening	Corporate	ServiceNow	Cx&T-IT-Service Now	-	5,350
516	6/14/24	1337256671	Enhancement	Data model for financial data reporting, sifting and scraping current SAP, PowerPlan, etc. to populate the lake, and creation of multiple reports from the lake.	Screening	Corporate	IT Finance		-	459,600
517	6/14/24	1337257063	Enhancement	Ability to capture forensic phone collections accurately as required by legal requests	Screening	Corporate	IT Legal		-	153,200
518	6/14/24	1337252421	Enhancement	Gas/Electric Choice rate changes is removing opt out flag	Submitted		SAP CCS BACK OFFICE	Cx&T SCC-CCC Policy & Procedures	110	8,736
519	6/14/24	DMND0209180	enhancement	ServiceNow_OT_SGCs - BCSI data	Qualified	Corporate	ServiceNow	Cx&T-IT-S&G-Asset Management	177	8,636
520	6/14/24	DMND0209181	Enhancement	ServiceNow_OT_SGCs - NO BCSI data	Qualified	Corporate	ServiceNow	Cx&T-IT-S&G-Asset Management	339	16,564
521	6/14/24	DMND0209182	Enhancement	Create new Priority for ESIC work order type and new C1 Notification Code.	Qualified	Corporate	SAP WORK MANAGEMENT	BP&A-Gas Ops & Engg	329	20,282
522	6/14/24	DMND0209210	Enhancement	GCOP DNV Inspection Manager Changes	Approved	Customer	Inspection Manager - GCC	GE&S/GAM/SL/DIMP-Reg Mgmt & DIMP Opt.	35	26,013
523	6/19/24	DMND0209273	Enhancement	New Consent form changes in SAP	Approved	Customer	CRM7	Cx&T SCC-CCC Policy & Procedures	1,008	92,000
524	6/19/24	DMND0209296	Enhancement	Reconciling Capital Charges before Field Completing Work Order	Screening	Electric	SAP WORK ORDERS	Lean - Elec Supply & Corp	-	-
525	6/21/24	478585	Enhancement	OT Assets RSA MFA Verification	Submitted	Security	Security	Security	120	15,000
526	6/24/24	DMND0209353	enhancement	Aurora CLM - Whitelisting	Submitted	Security	AURORA	Technology Portfolio Management	-	-
527	6/24/24	DMND0209353	enhancement	App Currency: WECO WATT-NET	Approved	Electric	WECO WinBoard Interface	Technology Portfolio Management	123	9,122
528	6/24/24	DMND0209362	Enhancement	Automating Doc Warehouse creation and sent the URL to SPIDA	Screening	Gas	SAP WORK MANAGEMENT	Cx&T-IT-Work and Asset Management	-	-
529	6/24/24	DMND0209386	Enhancement	Sending Error log to SPIDA for the Notification creation failure	Screening	Gas	SAP WORK MANAGEMENT	Cx&T-IT-Work and Asset Management	-	-
530	6/24/24	DMND0209390	Enhancement	SPIDA-SAP: Send Notification long Text to SPIDA and Work Order Integration	Screening	Gas	SAP WORK MANAGEMENT	Cx&T-IT-Work and Asset Management	-	-
531	6/24/24	DMND0209391	Enhancement	Review Onyx ecoPitch SAAS & sensors	Approved	Electric	ONYX	Cx&T-IT-Gen Ops & Electric Work Mgmt	-	-
532	6/25/24	DMND0209424	Enhancement	Changing 3 SAP V5 fields from optional to required entries in the field.	Screening	Customer	Service Suite	Cx&T-IT-Gen Ops & Electric Work Mgmt	114	7,893
533	6/25/24	DMND0209427	Enhancement	Storm digital ad automation	Submitted	Customer	Storm Information MSPA	GE&S-Damage Claims Billing	-	-
534	6/25/24	DMND0209451	enhancement	Re-establish validation check between SAP Interface & MISS DIG EOD Reports	Screening	Gas	SAP WORK MANAGEMENT	Brand & Creative Services	-	-
535	6/26/24	DMND0209457	Enhancement	SAP/Service Suite needs the backup LCP listed	Qualified	Gas	SAP WORK MANAGEMENT	OCC-Dam Prev & PSO	-	-
536	6/26/24	DMND0209501	Enhancement	Radio system enhancement for Barry County	Approved	Infra Platforms & Services	800 MHz IMC	Cx&T-IT-Work and Asset Management	-	67,473
537	6/27/24	DMND0209508	Enhancement	SAP Field Complete Status	Screening	Work Management	Work Management	Cx&T-IT-IP&S-Wireless Connectivity	91	152,898
538	6/27/24	DMND0209511	Enhancement	Radio system enhancement for Calhoun County	Approved	Infra Platforms & Services	800 MHz IMC	Lean - Elec Supply & Corp	-	-
539	6/27/24	DMND0209512	Enhancement	Prevent Regular users from enumerating elevated groups	Screening	Security	Security	Cx&T-IT-IP&S-Wireless Connectivity	97	161,623
540	6/28/24	480335	Enhancement	Reinstallation of the Standish planning plant	Screening	Gas	SAP WORK MANAGEMENT	Security	80	10,000
541	6/28/24	DMND0209552	Enhancement	Reallocation or creation of a Planning Plant for the Caro HQ	Screening	Gas	SAP WORK MANAGEMENT	GO-Gas Dispatch NE	-	-
542	6/28/24	DMND0209553	Enhancement	New Integration from SAP to JDMs	Screening	Corporate	JDMs - Job Descriptions Made	GO-Gas Dispatch NE	-	-
543	7/2/24	DMND0209613	Enhancement	MTC New Machine (DTS-II) SAP Integration	Screening	Work Management	SAP QM	SAP&P HR Information Systems	-	-
544	7/8/24	DMND0209696	Enhancement	Replace WAVE/WEDB tool with PowerApp	Approved	Electric	Microsoft Power Apps (MSPA)	EPM-Electric T&D Project Management	-	-
545	7/9/24	DMND0209724	Enhancement	Create Service Objects for IH01 order create	Submitted	Electric	SAP WORK ORDERS	Cx&T-IT-S&G-Strategy E&A	1,123	73,153
546	7/10/24	DMND0209732	enhancement	Requiring users to provide information in Required fields	Approved	App Platforms & Services	ServiceNow	ED GM-LVD Dispatch-GR A	-	-
547	7/12/24	DMND0209815	Enhancement	Charm must be in "Successfully tested" or "Imported to preprod" before App	Approved	App Platforms & Services	ServiceNow	Cx&T-IT-S&G-ASDO	78	3,833
548	7/12/24	DMND0209816	Enhancement	Demand Ticket to support Uplight UDP work - Carmen Ryan IT contact	Approved	App Platforms & Services	ServiceNow	Cx&T-IT-S&G-ASDO	70	3,422
549	7/12/24	DMND0209824	Enhancement	Add Word Order Description to 1ph 400 amp electric meter material	Screening	Customer	Energy Usage Dashboard	Exp Design Utility Services	247	29,477
550	7/15/24	DMND0209864	Enhancement	SCCM High Availability Enhancement	Approved	Infra Platforms & Services	Microsoft SCCM	EO-Elec Mtr Ops-Zone 7	-	-
551	7/16/24	DMND0209889	Enhancement	DPO Receipt Printers/Check Scanner Testing and Install	Submitted	Security	PC76180	Cx&T-IT-IP&S-Client Productivity & Comp	91	7,227
552	7/17/24	DMND0209900	enhancement	Update CRM and order management	Approved	Customer	CRM7	DCO RO-Direct Payment Offices-North/East	-	-
553	7/18/24	DMND0209960	Enhancement	Cisco Field Network Director	Approved	Security	Cisco IoT Field Network Director	Cx&T SCC-CCC Policy & Procedures	766	59,947
554	7/22/24	DMND0209990	Enhancement	Cisco IOS	Approved	Security	Cisco Identity Services Engine	Technology Portfolio Management	343	21,637
555	7/22/24	DMND0209992	Enhancement	Update SAP order processing to allow for multiple responses within light to OMS	Approved	Security	ServiceNow	Technology Portfolio Management	288	18,164
556	7/23/24	DMND0210046	Enhancement	Set up Magnit VMS integration with ServiceNow via OOTB Spoke	Qualified	Corporate	SAP WORK MANAGEMENT	GO-Gas Service Southeast B	-	37,369
557	7/24/24	DMND0210063	Enhancement	Website LMI Program Enrollment	Screening	Customer	ServiceNow	P&C-Workforce Planning & Analytics	118	5,789
558	7/24/24	DMND0210071	Enhancement	Renewable Program Online Enrollment	Screening	Customer	ServiceNow	Cx&T-Digital Operations	-	-
559	7/24/24	DMND0210072	Enhancement	SOX UAM 7 / 2.2 - Control Automation Improvement	Approved	Customer	Sitecore	Cx&T-Digital Operations	863	90,206
560	7/29/24	491368	Enhancement	Service Suite Changes to the Lawn and Hard Surface Restoration Form	Submitted	Security	Security	Security	100	12,500
561	7/29/24	DMND0210127	Enhancement	Implement SAP Integration for process currently using pen and paper.	Screening	Gas	Service Suite	GO-GCON-Resource Mgmt- D	-	-
562	7/31/24	DMND0210264	Enhancement	Update WattNet system.	Screening	Electric	SAP QM	EO-MTC Lifecycle Assessment	-	-
563	7/31/24	DMND0210266	enhancement	Update in_HR_ESRV_ServiceNow_1070_Positions to include Update action	Submitted	Electric	Wattnet	EO-MTC Lifecycle Assessment	-	-
564	8/2/24	DMND0210326	Enhancement	Rate Card Automation/Integration between Clarity & Magnit	Screening	Corporate	SAP ERP HR	P&C-Workforce Planning & Analytics	-	-
565	8/5/24	DMND0210343	Enhancement	Update BP enrollment email to match mailed letter	Approved	Corporate	Clarity	Cx&T-IT-CPF-P&C	372	64,637
566	8/5/24	DMND0210355	enhancement	Implement ServiceNow Oracle Global License Advisory Services data collect	Submitted	Corporate	SAP CCS PAYMENT PLANS	Rev Ops - Energy Assistance & Payment Pr	-	-
567	8/6/24	DMND0210438	Enhancement	Need response added to SAP for end user on failure to report a no	Qualified	Corporate	ServiceNow	Cx&T-IT-S&G-Asset Management	40	1,968
568	8/7/24	DMND0210441	Enhancement	Upgrade Singstore to a supported version	Screening	Electric	SAP WORK MANAGEMENT	GM-Products & Reporting	-	-
569	8/7/24	DMND0210477	Enhancement	CVR - DOE Enhancements	Approved	Infra Platforms & Services	MemSQL Database	Cx&T-IT-Core App Platforms-SAP	122	8,400
570	8/8/24	DMND0210494	Enhancement	new chat GPT for contact center	Approved	Electric	CVR Analytics	Technology Portfolio Management	684	43,436
571	8/9/24	DMND0210523	Enhancement	Sales Tax Exemption Process Automations	Approved	Customer	ServiceNow	Cx&T SCC-CCC Policy & Procedures	668	132,000
572	8/12/24	DMND0210548	Enhancement		Screening	Customer	CRM7	Cx&T BCC-Bus Solutions	1,400	111,188

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
Enhancement Worklist Detail
Information Technology
For Years 2016 Through October 21, 2024
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Line No.	(a) Open Date	(b) Number	(c) Type	(d) Description	(e) State	(f) Portfolio	(g) Configuration Item	(h) Requestor Department	(i) Total Estimated Hours	(j) Planned Cost
573	8/13/24	DMND0210550	enhancement	Solar Investigate Notification from CRM UI	Submitted		SAP CCS FRONT OFFICE	Distribution Agreements & Programs	-	-
574	8/13/24	DMND0210567	Enhancement	safety banner on en route screen going away when on site. BriefCatch add-in renewal and move from standalone to Microsoft 365 Admin	Screening	Gas	SAP WORK MANAGEMENT	GO-Gas Distribution-East-Zone-28	-	-
575	8/13/24	DMND0210578	enhancement	Work Planning Dashboards for Various Stakeholders	Submitted			BriefCatch 2.2 for Microsoft Office Cx&T-IT-CPF-Corporate Shared Products	-	-
576	8/16/24	DMND0210628	Enhancement		Qualified	Gas		SAP WORK MANAGEMENT FINAL Cx&T-IT-Work and Asset Management	1,834	198,930
577	8/18/24	DMND0210638	Enhancement	Register Update /Device Modification During Rate Transition Process	Approved	Customer	SAP CCS RATES	Cx&T-IT-Cust-Rates Rev Gen & Collect	702	74,060
578	8/19/24	DMND0210639	Enhancement	App Currency - CMM database upgrade	Approved	Electric	Synergi Gas CMM Customer Man Technology Portfolio Management		192	13,886
579	8/19/24	DMND0210663	Enhancement	CRM move out changes Implement ServiceNow Certificate Management - Specifically Requesting a ne	Approved	Customer	CRM7	CX&T SCC-CCC Policy & Procedures	321	18,000
580	8/23/24	DMND0210866	Enhancement	ServiceNow team - Mass Update Template form change	Qualified	Security	ServiceNow	CX&T-Security-Security Infra & Delivery	596	29,131
581	8/26/24	DMND0210895	Enhancement	Exchange Relay Deployment (Replace Proofpoint SER)	Approved	Infra Platforms & Services	ServiceNow	Cx&T-IT-IP&S-IT Device Purch & Deploy	81	3,958
582	8/27/24	500596	Enhancement	Automate carrier outage notifications and workflow	Screening	Security	Security	Security	150	48,750
583	8/27/24	500601	Enhancement	Establish a ServiceNow portal dedicated to Corporate Safety & Health.	Screening	Security	Security	Security	60	7,500
584	9/3/24	DMND0211018	enhancement	ServiceNow AD Group & Member Integration	Submitted		ServiceNow	Safety Systems & Data	-	-
585	9/4/24	DMND0211053	Enhancement	Connect Microsoft Project Online Data to Power BI	Qualified	App Platforms & Services	ServiceNow	Cx&T-IT-Digital Enablement	542	26,518
586	9/4/24	DMND0211073	enhancement	LIAC for CARE MB customers	Submitted		Power BI	Cx&T-IT-Gen Ops & Electric Work Mgmt	-	-
587	9/4/24	DMND0211098	Enhancement	DRMS Plan B DR Season Workaround Automation	Approved	Customer	SAP CCS COLLECTIONS	Cx&T-RO Credit & Collection	65	4,202
588	9/5/24	DMND0211125	Enhancement	CyberArk Lab Feature Parity to Production	Approved	Customer	IT CUST PROGRAMS - Demand Si	Cx&T-IT-CEO-Proj Mgmt	285	30,924
589	9/12/24	505392	Enhancement	Update Meterstand Leak Repair Pipe Info in FSS	Screening	Security	Security	Security	120	15,000
590	9/13/24	DMND0211305	Enhancement	Deploy Azure workbook for mfa gaps	Qualified	Gas	Service Suite	GE&S/GAM/SI-DIMP	30	6,886
591	9/13/24	506016	Enhancement	CyberArk integration with Azure App Registration key	Screening	Security	Security	Security	20	2,500
592	9/15/24	506024	Enhancement	Venafi - PKI	Screening	Security	Security	Security	250	31,250
593	9/15/24	506026	Enhancement	Move Sub/Holton Circuit Holton from the Muskegon to Fremont	Screening	Security	Security	Security	200	125,000
594	9/17/24	DMND0211368	Enhancement	Azure Logging - Auxiliary logs + SOC Optimization	Qualified	Work Management	SAP WORK MANAGEMENT	Operations Software & Technology	-	96,111
595	9/18/24	508050	Enhancement	Need custom report developed to get Rehire comments.	Screening	Security	Security	Security	40	5,000
596	9/18/24	DMND0211405	Enhancement	Integrate Azure Key Vault and OT Cyberark into Priv Account Separation Process	Qualified	Corporate	SAP ERP HR	P&C-Application Development	-	18,778
597	9/19/24	508207	Enhancement	Automation for ACE tool (ACE=Annual Compliance Evaluation)	Screening	Security	Security	Security	120	15,000
598	9/19/24	508431	Enhancement	Admin account unlock request	Approved	Security	Security	Security	40	5,000
599	9/20/24	508626	Enhancement	Looking to automate apprentice information	Screening	Security	Security	Security	80	10,000
600	9/20/24	DMND0211450	enhancement	Service Suite 3rd Party Damage - Condition on Arrival Required - KPMG	Submitted		Microsoft Power Apps (MSPA)	Elec Opers Perf & Procedures	-	-
601	9/23/24	DMND0211495	Enhancement	Quest Application Evaluation	Qualified	Gas	Service Suite	Cx&T-IT-Work and Asset Management	-	5,047
602	9/23/24	509431	Enhancement	MacOS Production VPN & iBoss	Screening	Security	Security	Security	240	30,000
603	9/23/24	509432	Enhancement	Governance of Group Policy Management	Approved	Security	Security	Security	40	5,000
604	9/23/24	509468	Enhancement	MFA Application Evaluation	Screening	Security	Security	Security	240	30,000
605	9/23/24	509469	Enhancement	SSO Application Evaluation	Screening	Security	Security	Security	150	18,750
606	9/23/24	509470	Enhancement	PKI SaaS Build	Screening	Security	Security	Security	150	18,750
607	9/23/24	509471	Enhancement	OT Domain Maturation	Screening	Security	Security	Security	160	20,000
608	9/23/24	509472	Enhancement	RSA Application Maturation	Screening	Security	Security	Security	160	20,000
609	9/23/24	509474	Enhancement	OT PAM Maturation	Screening	Security	Security	Security	160	20,000
610	9/23/24	509475	Enhancement	Identity Platform Documentation	Screening	Security	Security	Security	160	20,000
611	9/23/24	509476	Enhancement	CE QA Domain	Screening	Security	Security	Security	160	20,000
612	9/23/24	509477	Enhancement	Workflow to Transition Interns, Contractors to FTE	Screening	Security	Security	Security	160	20,000
613	9/23/24	509478	Enhancement	SAP - Rearchitect Roles	Screening	Security	Security	Security	160	20,000
614	9/23/24	509479	Enhancement	Break Glass Capabilities for Identity Platforms	Screening	Security	Security	Security	160	20,000
615	9/23/24	509480	Enhancement	Identity Platform Application Currency	Screening	Security	Security	Security	160	20,000
616	9/23/24	509481	Enhancement	OTAM SolarWinds Service Graph Connector	Screening	Security	Security	Security	160	20,000
617	9/23/24	509488	Enhancement	iBoss Filtering for Macs	Screening	Security	Security	Security	160	20,000
618	9/24/24	509707	Enhancement	ServiceNow create a notification email for device return tickets	Screening	Security	ServiceNow	CX&T-IT-IP&S-IT Device Purch & Deploy	29	1,408
619	9/25/24	510336	Enhancement	Highlight NSCE tickets	Qualified	Infra Platforms & Services	ServiceNow	CX&T-IT-S&G-Risk & Controls	136	6,649
620	9/25/24	DMND0211590	Enhancement	We are looking to add a new piece to our Personas page for Gas Dispatch and Sche	Qualified	Corporate			-	-
621	9/27/24	DMND0211628	Enhancement	Line Sensors Serial Number with field data collection	Gas		SAP PERSONAS DISTR SCHEDULI	GO-Gas Dispatch & Scheduling Support	85	12,554
622	9/27/24	DMND0211631	Enhancement	Island Protocol Critical Service Isolation	Screening	Gas	SAP WORK MANAGEMENT	Cx&T-IT-Work and Asset Management	-	-
623	10/1/24	DMND0211666	Enhancement	Fleet - Default printer update for Jackson	Screening	Security	Security	Security	160	20,000
624	10/2/24	512355	Enhancement	Changes to paper & eBill	Screening	Customer	Fleet Diagnostics Applications	Field Operations Support A	39	2,297
625	10/2/24	DMND0211683	Enhancement	Please replace letter file with new postcard file in SAP for meter access	Qualified	Customer	SAP CCS BACK OFFICE	Rev Ops - Energy Assistance & Payment Pr	876	30,838
626	10/2/24	DMND0211708	Enhancement	Automatic Validation and Closure of Azure ARC and Sentinel ServiceNow Tickets	Approved				-	-
627	10/4/24	DMND0211756	enhancement	Implement DevOps Framework for Azure Logic Apps	Submitted		SAP DESIGN DOCUMENTS	Brand & Creative Services	-	-
628	10/7/24	513759	Enhancement	Create new integration from SAP to Baker Tilly (LCP Tracker)	Screening	Security	Security	Security	160	20,000
629	10/8/24	514354	Enhancement	On-Call Calendar Integration	Screening	Security	Security	Security	160	20,000
630	10/9/24	DMND0211846	enhancement	Microsoft Premium Defender Threat Intelligence	Submitted		SAP ERP HR	CX&T-IT-CPF-P&C	-	-
631	10/9/24	514813	Enhancement	RPA: Update Micro GADS Calculated Data	Screening	Security	Security	Security	160	20,000
632	10/10/24	515053	Enhancement	Create Application Security Catalog Items	Screening	Security	Security	Security	160	20,000
633	10/11/24	DMND0211901	Enhancement	Move Azure / o365 authentication from ADFS to Entra AD	Qualified	App Platforms & Services	Microsoft Power Automate Deskt	CX&T-IT-Development Foundation	175	7,207
634	10/12/24	DMND0211905	Enhancement	Silverfort Implementation	Screening	Security	ServiceNow	CX&T-Security-Security Infra & Delivery	123	4,005
635	10/13/24	515765	Enhancement	ITAM - update the form for NFR process	Screening	Security	Security	Security	160	20,000
636	10/14/24	515778	Enhancement	SquaredUp Replacement	Approved	Security	Security	Security	300	547,500
637	10/16/24	517942	Enhancement	ZLTR Improvements	Screening	Security	Security	Security	160	20,000
638	10/17/24	518254	Enhancement		Submitted		Security	Security	160	20,000
639	10/17/24	DMND0212069	Enhancement		Qualified	Customer	IT CUST PROGRAMS - Transporta	CX&T-IT-CEO-Proj Mgmt	661	42,859

EXHIBIT A-26 (SHB-11)
IS CONFIDENTIAL AND
BEING FILED UNDER SEAL
WITH THE MPSC

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of)
CONSUMERS ENERGY COMPANY)
for authority to increase its rates for the)
distribution of natural gas and for other relief.)
_____)

Case No. U-21806

EXHIBITS
OF
COREY E. BALLINGER
ON BEHALF OF
CONSUMERS ENERGY COMPANY

December 2024

Schedule: B-5.2

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Summary of Actual and Projected Capital Expenditures

Fleet Services

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Case No.: U-21806

Exhibit No.: A-12 (CEB-1)

Schedule: B-5.2

Page: 1 of 3

Witness: CEBallinger

Date: December 2024

Line No	(a) Description	(b) Historical Year 12 Mos Ended 12/31/2023	(c) 12 Mos Ending 12/31/2024	(d) 10 Mos Ending 10/31/2025	(e) 22 Mos Ending 10/31/2025	(f) Projected Test Year* 12 Mos Ending 10/31/2026
		Projected Bridge Period*				
1	Fleet Vehicle Capital Replacement	9,004	9,664	6,605	16,269	12,923
2	Fleet Vehicle Electrification	0	0	240	240	360
3	Fleet Business Partner Funded	160	23	0	23	0
4	Fleet Tools - Garage	242	238	203	441	249
5	Total Fleet Services Capital	9,405	9,925	7,048	16,973	13,532

		Projected*			
		10 Mos Ending 10/31/2024	12 Mos Ending 10/31/2025	12 Mos Ending 10/31/2026	34 Mos Ending 10/31/2026
6	Fleet Vehicle Capital Replacement	5,593	10,677	12,923	29,193
7	Fleet Vehicle Electrification	0	240	360	600
8	Fleet Business Partner Funded	23	0	0	23
9	Fleet Tools - Garage	154	287	249	690
10	Total Fleet Services Capital	5,770	11,203	13,532	30,506

*The Company fully plans to perform the projects included in these cost projections, but the projections do not incorporate a specific confidence level.

Schedule: B-5.2

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
 Actual and Projected Capital Expenditures
 Fleet Services
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Case No.: U-21806
 Exhibit No.: A-12 (CEB-1)
 Schedule: B-5.2
 Page: 2 of 3
 Witness: CEBallinger
 Date: December 2024

		(a)	(b)	(c)	(d)	(e)	(f)
Line No	Description	Historical Year	Projected Bridge Year*			Projected Test Year*	
		12 Mos Ended 12/31/2023	12 Mos Ending 12/31/2024	10 Mos Ending 10/31/2025	22 Mos Ending 10/31/2025	12 Mos Ending 10/31/2026	
1	Fleet Vehicle Capital Replacement	9,004	9,664	6,605	16,269	12,923	
	Labor	0	0	0	0	0	
	Capitalized E&S	0	0	0	0	0	
	Materials	8,135	7,731	5,284	13,015	10,338	
	Contractor	338	1,643	1,123	2,766	2,197	
	Non-Labor Overhead	0	0	0	0	0	
	Non-Labor Other**	531	290	198	488	388	
	Contingency	0	0	0	0	0	
2	Fleet Vehicle Electrification	0	0	240	240	360	
	Labor	0	0	0	0	0	
	Capitalized E&S	0	0	0	0	0	
	Materials	0	0	192	192	288	
	Contractor	0	0	41	41	61	
	Non-Labor Overhead	0	0	0	0	0	
	Non-Labor Other**	0	0	7	7	11	
	Contingency	0	0	0	0	0	
3	Fleet Business Partner Funded	160	23	0	23	0	
	Labor	0	0	0	0	0	
	Capitalized E&S	0	0	0	0	0	
	Materials	145	18	0	18	0	
	Contractor	15	4	0	4	0	
	Non-Labor Overhead	0	0	0	0	0	
	Non-Labor Other**	0	1	0	1	0	
	Contingency	0	0	0	0	0	
4	Fleet Tools - Garage	242	238	203	441	249	
	Labor	0	0	0	0	0	
	Capitalized E&S	0	0	0	0	0	
	Materials	242	238	203	441	249	
	Contractor	0	0	0	0	0	
	Non-Labor Overhead	0	0	0	0	0	
	Non-Labor Other**	0	0	0	0	0	
	Contingency	0	0	0	0	0	
5	Total Fleet Services Capital	9,405	9,925	7,048	16,973	13,532	
	Labor	0	0	0	0	0	
	Capitalized E&S	0	0	0	0	0	
	Materials	8,521	7,987	5,679	13,667	10,875	
	Contractor	353	1,647	1,164	2,810	2,258	
	Non-Labor Overhead	0	0	0	0	0	
	Non-Labor Other**	531	291	205	496	398	
	Contingency	0	0	0	0	0	

*The Company fully plans to perform the projects included in these cost projections, but the projections do not incorporate a specific confidence level.

**Unless noted otherwise, capital "other" costs include expenses such as AFUDC, fleet transportation, pension, administrative/general expenses, indirect non-labor expenses, rent/utility costs, employee benefits, and business expenses (e.g., travel, meals, etc.).

Schedule: B-5.2

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
 Actual and Projected Capital Expenditures
 Fleet Services
 (\$000)

Case No.: U-21806
 Exhibit No.: A-12 (CEB-1)
 Schedule: B-5.2
 Page: 3 of 3
 Witness: CEBallinger
 Date: December 2024

	(a)	(b)	(c)	(d)	(e)
			Projected*		
		10 Mos Ending 10/31/2024	12 Mos Ending 10/31/2025	12 Mos Ending 10/31/2026	34 Mos Ending 10/31/2026
6	Fleet Vehicle Capital Replacement	5,593	10,677	12,923	29,193
	Labor	0	0	0	0
	Capitalized E&S	0	0	0	0
	Materials	4,475	8,541	10,338	23,354
	Contractor	951	1,815	2,197	4,963
	Non-Labor Overhead	0	0	0	0
	Non-Labor Other**	168	320	388	876
	Contingency	0	0	0	0
7	Fleet Vehicle Electrification	0	240	360	600
	Labor	0	0	0	0
	Capitalized E&S	0	0	0	0
	Materials	0	192	288	480
	Contractor	0	41	61	102
	Non-Labor Overhead	0	0	0	0
	Non-Labor Other**	0	7	11	18
	Contingency	0	0	0	0
8	Fleet Business Partner Funded	23	0	0	23
	Labor	0	0	0	0
	Capitalized E&S	0	0	0	0
	Materials	19	0	0	19
	Contractor	3	0	0	3
	Non-Labor Overhead	0	0	0	0
	Non-Labor Other**	0	0	0	0
	Contingency	0	0	0	0
9	Fleet Tools - Garage	154	287	249	690
	Labor	0	0	0	0
	Capitalized E&S	0	0	0	0
	Materials	154	287	249	690
	Contractor	0	0	0	0
	Non-Labor Overhead	0	0	0	0
	Non-Labor Other**	0	0	0	0
	Contingency	0	0	0	0
10	Total Fleet Services Capital	5,770	11,203	13,532	30,506
	Labor	0	0	0	0
	Capitalized E&S	0	0	0	0
	Materials	4,648	9,020	10,875	24,543
	Contractor	954	1,856	2,258	5,068
	Non-Labor Overhead	0	0	0	0
	Non-Labor Other**	168	327	398	894
	Contingency	0	0	0	0

*The Company fully plans to perform the projects included in these cost projections, but the projections do not incorporate a specific confidence level.

**Unless noted otherwise, capital "other" costs include expenses such as AFUDC, fleet transportation, pension, administrative/general expenses, indirect non-labor expenses, rent/utility costs, employee benefits, and business expenses (e.g., travel, meals, etc.).

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Fleet Responsibility Costs

Case No.: U-21806

Exhibit No.: A-27 (CEB-2)

Page: 1 of 1

Witness: CEBallinger

Date: December 2024

Line No.	Categories	2016	2017	2018	2019	2020	2021	2022	2023
1	Licensing	3,750,828	359,176	2,366,665	2,378,900	2,738,753	2,840,343	3,145,786	3,192,336
2	Technician	13,517,549	14,945,880	15,741,694	17,083,824	16,878,522	18,902,790	19,788,278	19,585,618
3	Parts	6,915,581	7,797,781	9,616,863	11,150,363	10,656,308	11,649,547	14,557,200	14,755,428
4	Outside Vendor	7,969,417	8,707,404	10,312,544	12,338,445	12,809,528	12,801,491	14,875,779	14,242,537
5	Fuel	10,986,225	14,273,104	16,894,736	15,398,764	12,808,774	17,865,478	25,105,355	20,322,235
6	Support Labor	4,179,501	4,310,356	4,639,242	5,203,200	5,096,942	5,034,713	5,031,440	4,790,586
7	Support Other	1,653,792	2,248,636	3,071,977	3,125,588	3,141,164	3,480,793	4,205,239	3,174,534
8	Total Cost	48,972,893	52,642,337	62,643,722	66,679,085	64,129,991	72,575,154	86,709,077	80,063,275

Line No.	(a)	(b)	Test Year									
			(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)		
			12 months ended 12/31/2023	12 months ended 12/31/2023	12 months ending 12/31/2024	12 months ending 12/31/2024	12 months ending 12/31/2025	12 months ending 12/31/2025	12 months ending 10/31/2026	12 months ending 10/31/2026	Projected Unit Count	Projected Unit Count
			Projected Spend	Projected Unit Count	Projected Spend*	Projected Unit Count	Projected Spend*	Projected Unit Count	Projected Spend*	Projected Unit Count	Projected Unit Count	Projected Unit Count
			(\$000)	(units)	(\$000)	(units)	(\$000)	(units)	(\$000)	(units)		(units)
1	Fleet Vehicle Capital Replacement Plan											
	Vehicle Spec.	Description										
07		SEDAN MID SIZE 4DR	9,004	134	9,687	127	9,919	80	12,923			96
22		1/2 TON PICKUP	619	2	140	3	-	-	-	-	-	5
23		VAN CARGO	425	7	1,057	20	467	6	432			44
26		1 TON PICKUP WITH SERVICE BODY SHORT CAB	178	5	2,048	18	1,147	12	5,800			
27		TRUCK SVC 4WD	492	3	347	7	291	4	-			7
28		3/4 TON PICKUP	527	7	784	9	2,347	21	787			9
41		WELDER TRUCK	-	9	517	14	255	9	705			1
42		TRUCK SVC 1T	-	-	464	3	161	1	-			1
44		TRUCK LINE ENC BODY W/PTO COMP	3,742	-	1,528	5	4,532	3	136			15
45		MECHANIC SERVICE TRUCK	-	-	762	2	-	21	3,931			-
59		STAKE RACK TRUCK	-	-	-	-	-	-	129			1
68		WALK IN SERVICE BODY VAN LD	-	-	-	-	-	-	129			1
85		EQUIPMENT	1,950	-	252	1	-	-	-			8
		TRAILERS	483	17	972	9	390	3	680			5
		Lease Buyout	494	14	637	13	-	-	195			-
				53	180	23	-	-	-			-
2	Fleet Vehicle Electrification											
	Vehicle Spec.	Description										
22		Electric Vehicle Investment	-	-	-	-	240	6	-			-
			-	-	-	-	240	6	-			-
3	Fleet Business Partner Funded											
	Vehicle Spec.	Description										
07		SEDAN MID SIZE 4DR	130	3	23	1	-	-	-			-
22		1/2 Ton Pickup	130	3	23	1	-	-	-			-
			\$	\$	\$	\$	\$	\$	\$			\$
			\$	30	1	1	-	-	-			-
4	Totals:											
			9,134	137	9,710	128	10,159	86	12,923			96

*The Company fully plans to perform the projects included in these cost projections, but the projections do not incorporate a specific confidence level.

Line No.	(a) Project Name	(b) Internal Approval	(c) Has a Business Case	(d) Explanation
1	Fleet Vehicle Capital Replacement Plan	YES	NO	Internal funding approval. There is no formal business case, spending level is at historical plus inflation.
2	Fleet Vehicle Electrification	YES	NO	Internal funding approval. There is no formal business case, spending level supports the Fleet Vehicle Capital Replacement plan plus the additional cost for EV units.
3	Fleet Business Partner Funded	YES	NO	Internal funding approval. There is no formal business case but there are internal support documents for individual unit need.
4				

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Corporation

Summary of Fleet Tooling Actual & Projected Capital Expenditures

Fleet Services

For the Years 2023, 2024, 2025 and test year 12 months ending 10/31/2026
(\$000)

Case No.: U-21806
Exhibit No.: A-29 (CEB-4)
Page: 1 of 1
Witness: CEBallinger
Date: December 2024

Line No.	(a)	(b)		(c)		(d)		Test Year (e)
		12 months ended 12/31/2023	Historical	12 months ending 12/31/2024	Projected Spend	12 months ending 12/31/2025	Projected Spend	12 months ending 10/31/2026 Projected Spend
1	Fleet Tools - Garage							
	<u>Tool Description</u>							
	Shop Equipment	\$ 171	\$	173	\$	180	\$	181
	Shop Tools	\$ 23	\$	22	\$	22	\$	24
	Diagnostic Tools	\$ 48	\$	43	\$	42	\$	44
2	Fleet Tools Totals:	\$ 242	\$	238	\$	244	\$	249

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of)
CONSUMERS ENERGY COMPANY)
for authority to increase its rates for the)
distribution of natural gas and for other relief.)
_____)

Case No. U-21806

EXHIBITS
OF
MARC R. BLECKMAN
ON BEHALF OF
CONSUMERS ENERGY COMPANY

December 2024

Schedule D-1

Line No.	(a) Description	(b) Capital Structure Percent		(d) Percent of Total Capital	(e) Cost Rate %	(f) Permanent Capital (7)	(g) Weighted Cost		(i) Pre-Tax Return (9)
		Amount (\$'000,000) (1)	Permanent Capital (2)				Total Cost % (8)	Conversion Factor	
1									
2	Long-Term Debt	\$ 12,645	49.10%	41.19%	4.35% (3)	2.14%	1.79%	1.0000	1.79%
3									
4	Preferred Stock	37	0.14%	0.12%	4.50% (4)	0.01%	0.01%	1.3381	0.01%
5									
6	Common Shareholder's Equity	13,070	50.75%	42.58%	10.25% (5)	5.20%	4.36%	1.3381	5.84%
7									
8	Total Permanent Capital	\$ 25,752	100.00%						
9									
10	Short-Term Debt	201		0.66%	4.52% (6)		0.03%	1.0000	0.03%
11									
12	Deferred Income Taxes	4,629		15.08%	0.00%		0.00%	1.0000	0.00%
13									
14	Investment Tax Credit								
15	Long-Term Debt	56		0.18%	4.35%		0.01%	1.0000	0.01%
16	Preferred Stock	0		0.00%	4.50%		0.00%	1.3381	0.00%
17	Common Equity	58		0.19%	10.25%		0.02%	1.3381	0.03%
18									
19	Total	\$ 30,697		100.00%			6.22%		7.70%

- (1) See Exhibit A-14 (MRB-2), Schedule D-1a, Page 1.
(2) Excludes Short-term Debt, Deferred Income Taxes, and Investment Tax Credit to calculate the rate of return for Investment Tax Credit purposes in accordance with Internal Revenue Service Tax Regulation Section 1.46-6.
(3) See Exhibit A-14 (MRB-4), Schedule D-2.
(4) See Exhibit A-14 (MRB-6), Schedule D-4.
(5) See Exhibit A-14 (AEB-1), Schedule D-5.
(6) See Exhibit A-14 (MRB-5), Schedule D-3, Page 1.
(7) Column (c) x column (e).
(8) Column (d) x column (e).
(9) Column (g) x column (h).

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
Capital Structure Development
for the Projected Year Ending October 31, 2026

Schedule D-1a

Case No.: U-21806
Exhibit No.: A-14 (MRB-2)
Schedule: D-1a
Page: 1 of 4
Witness: MRBleckman
Date: December 2024

Line No.	(a) Description	13-Month Avg. For Yr. Ended December 31, 2023											(i)			
		(b)			(c)		(d)		(e)		(f)	(g)		(h)		
		Outstanding (000,000)	Permanent Capital	% of Total Capital	Balances as of Dec. 31, 2023 (000,000)	Test Year Adjustments (000,000)	Amount Outstanding (000,000)	Permanent Capital	% of Total Capital							
1	Long-Term Debt	\$ 10,135	49.10%	40.40%	\$ 10,397	\$ 2,248	\$ 12,645		49.10%		41.19%					
3	Preferred Stock	37	0.18%	0.15%	37	-	37		0.14%		0.12%					
6	Common Equity	10,470	50.72%	41.74%	10,779	2,291	13,070		50.75%		42.58%					
8	Total Permanent Capital	\$ 20,643	100.00%		\$ 21,213	\$ 4,539	\$ 25,752		100.00%							
10	Short-Term Debt	290		1.16%	122	79	201				0.66%					
12	Deferred Income Taxes	4,024		16.04%	4,103	526	4,629				15.08%					
15	Investment Tax Credit															
15	Long-Term Debt	63		0.25%	62	(5)	56				0.18%					
16	Preferred Stock	0		0.00%	0	(0)	0				0.00%					
17	Common Equity	65		0.26%	64	(6)	58				0.19%					
18	Total Investment Tax Credit	128		0.51%	126	(11)	115				0.37%					
21	Total Capitalization	\$ 25,085		100.00%	\$ 25,564	\$ (10)	\$ 30,697				100.00%					

Sources and Support, by Column:

- (b) Consumers Energy General Ledger 13-month average balances as of December 31, 2023.
- (c) Each line 2, 4, and 6 in column (b) is divided by line 8, column (b).
- (d) Each line 2, 4, 6, 10, 12, 15, 16, 17, and 19 in column (b) is divided by line 21, column (b).
- (e) Consumers Energy General Ledger balances as of December 31, 2023.
- (f) Line 2 Debt maturities and debt issues, line 6 Adjustment for retained earnings and equity contributions, line 10 Adjustment to project short-term debt, line 12 Adjustment to project Deferred Income Taxes balance, lines 15-17 Adjustment to project Investment Tax Credit balance.
- (g) Column (e) + column (f). Represents 13-month averages.
- (h) Each line 2, 4, and 6 in column (g) is divided by line 8, column (g).
- (i) Each line 2, 4, 6, 10, 12, 15, 16, 17, and 19 in column (g) is divided by line 21, column (g).

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
Capital Structure Development - Projected Long-Term Debt Balance
for the Projected Year Ending October 31, 2026
(in millions)

Schedule D-1a

Case No.: U-21806
Exhibit No.: A-14 (MRB-2)
Schedule: D-1a
Page: 2 of 4
Witness: MRBleckman
Date: December 2024

Line No.	(a) Long-Term Debt	(b) Actual		(c) Actual		(d) Actual		(e) Actual		(f) Actual		(g) Actual		(h) Actual		(i) Actual		(j) Actual		(k) Actual		(l) Actual		(m) Actual	
		Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
1	Beginning Balance	\$ 9,106	\$ 9,532	\$ 10,232	\$ 10,232	\$ 10,232	\$ 10,632	\$ 10,332	\$ 10,332	\$ 10,507	\$ 10,507	\$ 10,507	\$ 10,507	\$ 10,332	\$ 10,332	\$ 10,332	\$ 10,332	\$ 10,507	\$ 10,507	\$ 10,507	\$ 10,507	\$ 10,507	\$ 10,507	\$ 10,507	\$ 10,507
2	Add: Issuances	426	700	-	-	400	-	-	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	Less: Retirements	-	-	-	-	-	(300)	-	(325)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Subtotal	\$ 9,532	\$ 10,232	\$ 10,232	\$ 10,232	\$ 10,632	\$ 10,332	\$ 10,332	\$ 10,507	\$ 10,507	\$ 10,507	\$ 10,507	\$ 10,507	\$ 10,332	\$ 10,332	\$ 10,332	\$ 10,332	\$ 10,507	\$ 10,507	\$ 10,507	\$ 10,507	\$ 10,507	\$ 10,507	\$ 10,507	\$ 10,507
5																									
6	Less: Unamortized Fees	\$ (102)	(110)	(110)	(109)	(109)	(109)	(108)	(112)	(111)	(110)	(110)	(110)	(110)	(110)	(110)	(110)	(110)	(110)	(110)	(110)	(110)	(110)	(110)	(110)
7																									
8	Ending Balance	\$ 9,430	\$ 10,122	\$ 10,122	\$ 10,123	\$ 10,523	\$ 10,223	\$ 10,224	\$ 10,395	\$ 10,396	\$ 10,397	\$ 10,397	\$ 10,397	\$ 10,224	\$ 10,224	\$ 10,224	\$ 10,224	\$ 10,395	\$ 10,396	\$ 10,397	\$ 10,397	\$ 10,397	\$ 10,397	\$ 10,397	\$ 10,397
9																									
10																									
11																									
12																									
13	Long-Term Debt	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24												
14	Beginning Balance	\$ 10,507	\$ 11,107	\$ 11,107	\$ 11,107	\$ 11,107	\$ 11,107	\$ 11,107	\$ 11,107	\$ 11,107	\$ 11,557	\$ 11,557	\$ 11,557	\$ 11,107	\$ 11,107	\$ 11,107	\$ 11,107	\$ 11,107	\$ 11,557	\$ 11,557	\$ 11,557	\$ 11,557	\$ 11,557	\$ 11,557	\$ 11,557
15	Add: Issuances	600	-	-	-	-	-	-	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	Less: Retirements	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	Subtotal	\$ 11,107	\$ 11,107	\$ 11,107	\$ 11,107	\$ 11,107	\$ 11,107	\$ 11,107	\$ 11,807	\$ 11,557	\$ 11,557	\$ 11,557	\$ 11,557	\$ 11,107	\$ 11,107	\$ 11,107	\$ 11,107	\$ 11,557	\$ 11,557	\$ 11,557	\$ 11,557	\$ 11,557	\$ 11,557	\$ 11,557	\$ 11,557
18																									
19	Less: Unamortized Fees	(115)	(114)	(113)	(113)	(112)	(112)	(111)	(116)	(116)	(115)	(115)	(115)	(115)	(115)	(115)	(115)	(115)	(115)	(115)	(115)	(115)	(115)	(115)	(115)
20																									
21	Ending Balance	\$ 10,992	\$ 10,993	\$ 10,994	\$ 10,994	\$ 10,995	\$ 10,995	\$ 10,996	\$ 11,691	\$ 11,441	\$ 11,442	\$ 11,442	\$ 11,390	\$ 10,996	\$ 10,996	\$ 10,996	\$ 10,996	\$ 11,691	\$ 11,441	\$ 11,442	\$ 11,442	\$ 11,442	\$ 11,442	\$ 11,442	\$ 11,390
22																									
23																									
24																									
25																									
26	Long-Term Debt	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25												
27	Beginning Balance	\$ 11,505	\$ 11,505	\$ 11,505	\$ 11,505	\$ 11,505	\$ 11,980	\$ 11,980	\$ 11,980	\$ 12,480	\$ 12,480	\$ 12,480	\$ 12,480	\$ 11,980	\$ 11,980	\$ 11,980	\$ 11,980	\$ 12,480	\$ 12,480	\$ 12,480	\$ 12,480	\$ 12,480	\$ 12,480	\$ 12,480	\$ 12,480
28	Add: Issuances	-	-	-	-	475	-	-	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	Less: Retirements	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	Subtotal	\$ 11,505	\$ 11,505	\$ 11,505	\$ 11,505	\$ 11,980	\$ 11,980	\$ 11,980	\$ 12,480	\$ 12,480	\$ 12,480	\$ 12,480	\$ 12,480	\$ 11,980	\$ 11,980	\$ 11,980	\$ 11,980	\$ 12,480	\$ 12,480	\$ 12,480	\$ 12,480	\$ 12,480	\$ 12,480	\$ 12,480	\$ 12,480
31																									
32	Less: Unamortized Fees	(114)	(114)	(114)	(113)	(117)	(117)	(117)	(121)	(121)	(121)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)	(120)
33																									
34	Ending Balance	\$ 11,391	\$ 11,391	\$ 11,391	\$ 11,392	\$ 11,863	\$ 11,863	\$ 11,863	\$ 12,359	\$ 12,359	\$ 12,359	\$ 12,360	\$ 12,360	\$ 11,863	\$ 11,863	\$ 11,863	\$ 11,863	\$ 12,359	\$ 12,359	\$ 12,359	\$ 12,360	\$ 12,360	\$ 12,360	\$ 12,360	\$ 12,360
35																									
36																									
37																									
38																									
39	Long-Term Debt	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26	Aug-26	Sep-26	Oct-26														
40	Beginning Balance	\$ 12,480	\$ 12,480	\$ 12,480	\$ 12,480	\$ 12,480	\$ 12,890	\$ 12,890	\$ 12,890	\$ 13,315	\$ 13,315	\$ 13,315	\$ 13,315	\$ 12,480	\$ 12,480	\$ 12,480	\$ 12,480	\$ 12,890	\$ 12,890	\$ 12,890	\$ 12,890	\$ 13,315	\$ 13,315	\$ 13,315	\$ 13,315
41	Add: Issuances	-	-	-	-	525	-	-	425	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	Less: Retirements	-	-	-	-	(115)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	Subtotal	\$ 12,480	\$ 12,480	\$ 12,480	\$ 12,480	\$ 12,890	\$ 12,890	\$ 12,890	\$ 13,315	\$ 13,315	\$ 13,315	\$ 13,315	\$ 13,315	\$ 12,480	\$ 12,480	\$ 12,480	\$ 12,480	\$ 12,890	\$ 12,890	\$ 12,890	\$ 12,890	\$ 13,315	\$ 13,315	\$ 13,315	\$ 13,315
44																									
45	Less: Unamortized Fees	(120)	(119)	(119)	(119)	(124)	(124)	(124)	(126)	(126)	(126)	(126)	(126)	(126)	(126)	(126)	(126)	(126)	(126)	(126)	(126)	(126)	(126)	(126)	(126)
46																									
47	Ending Balance	\$ 12,360	\$ 12,361	\$ 12,361	\$ 12,361	\$ 12,766	\$ 12,766	\$ 12,766	\$ 13,189	\$ 13,189	\$ 13,189	\$ 13,189	\$ 13,189	\$ 12,361	\$ 12,361	\$ 12,361	\$ 12,361	\$ 12,766	\$ 12,766	\$ 12,766	\$ 12,766	\$ 13,189	\$ 13,189	\$ 13,189	\$ 13,189
48																									
49																									
50	Test Year 13-Month Average:																								
51	Subtotal																								
52	Less: Unamortized Fees																								
53	Ending Balance																								

\$ 12,767
(122)
\$ 12,645

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Capital Structure Development - Projected Common Equity Balance

for the Projected Year Ending October 31, 2026

(in millions)

Schedule D-1a

Case No.: U-21806
Exhibit No.: A-14 (MRB-2)
Schedule: D-1a
Page: 3 of 4
Witness: MRBleckman
Date: December 2024

Line No.	(a) Common Equity	(b) Actual Jan-23	(c) Actual Feb-23	(d) Actual Mar-23	(e) Actual Apr-23	(f) Actual May-23	(g) Actual Jun-23	(h) Actual Jul-23	(i) Actual Aug-23	(j) Actual Sep-23	(k) Actual Oct-23	(l) Actual Nov-23	(m) Actual Dec-23
1	Beginning Balance	\$10,134	\$10,226	\$10,059	\$10,154	\$10,181	\$10,643	\$10,702	\$10,633	\$10,668	\$10,724	\$10,556	\$10,654
2	Ret. Earnings	92	(242)	95	27	62	59	(69)	35	56	(168)	98	125
3	Equity Infusion	-	75	-	-	400	-	-	-	-	-	-	-
4	Ending Balance	<u>\$10,226</u>	<u>\$10,059</u>	<u>\$10,154</u>	<u>\$10,181</u>	<u>\$10,643</u>	<u>\$10,702</u>	<u>\$10,633</u>	<u>\$10,668</u>	<u>\$10,724</u>	<u>\$10,556</u>	<u>\$10,654</u>	<u>\$10,779</u>
5													
6													
7													
8	Common Equity	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
9	Beginning Balance	\$10,779	\$10,898	\$10,712	\$10,788	\$10,790	\$10,848	\$10,872	\$10,796	\$10,885	\$10,960	\$10,792	\$11,190
10	Ret. Earnings	119	(186)	76	2	58	24	(76)	89	75	(168)	98	125
11	Equity Infusion	-	-	-	-	-	-	-	-	-	-	300	115
12	Ending Balance	<u>\$10,898</u>	<u>\$10,712</u>	<u>\$10,788</u>	<u>\$10,790</u>	<u>\$10,848</u>	<u>\$10,872</u>	<u>\$10,796</u>	<u>\$10,885</u>	<u>\$10,960</u>	<u>\$10,792</u>	<u>\$11,190</u>	<u>\$11,429</u>
13													
14													
15													
16													
17													
18	Common Equity	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
19	Beginning Balance	\$11,429	\$11,444	\$11,908	\$11,923	\$11,937	\$11,951	\$12,441	\$12,455	\$12,470	\$12,484	\$12,498	\$12,513
20	Ret. Earnings	14	14	14	14	14	14	14	14	14	14	14	14
21	Equity Infusion	-	450	-	-	-	475	-	-	-	-	-	-
22	Ending Balance	<u>\$11,444</u>	<u>\$11,908</u>	<u>\$11,923</u>	<u>\$11,937</u>	<u>\$11,951</u>	<u>\$12,441</u>	<u>\$12,455</u>	<u>\$12,470</u>	<u>\$12,484</u>	<u>\$12,498</u>	<u>\$12,513</u>	<u>\$12,527</u>
23													
24													
25													
26													
27	Common Equity	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26	Aug-26	Sep-26	Oct-26		
28	Beginning Balance	\$12,527	\$12,542	\$13,006	\$13,021	\$13,035	\$13,049	\$13,514	\$13,528	\$13,543	\$13,557		
29	Ret. Earnings	14	14	14	14	14	14	14	14	14	14		
30	Equity Infusion	-	450	-	-	-	450	-	-	-	-		
31	Ending Balance	<u>\$12,542</u>	<u>\$13,006</u>	<u>\$13,021</u>	<u>\$13,035</u>	<u>\$13,049</u>	<u>\$13,514</u>	<u>\$13,528</u>	<u>\$13,543</u>	<u>\$13,557</u>	<u>\$13,571</u>		
32													
33													
34													
35	Test Year 13-Month Average												

\$13,070

		Test Year Impact of Retained Earnings			Test Year Impact of Equity Infusions		
		2024	2025	2026	2024	2025	2026
Jan	\$ 119	\$ 250	\$ 423	\$ -	\$ -	\$ 415	\$ 1,340
Feb	\$ (67)	\$ 264	\$ 437	\$ -	\$ -	\$ 865	\$ 1,790
Mar	\$ 9	\$ 279	\$ 452	\$ -	\$ -	\$ 865	\$ 1,790
Apr	\$ 11	\$ 293	\$ 466	\$ -	\$ -	\$ 865	\$ 1,790
May	\$ 69	\$ 308	\$ 481	\$ -	\$ -	\$ 865	\$ 1,790
Jun	\$ 93	\$ 322	\$ 495	\$ -	\$ -	\$ 1,340	\$ 2,240
Jul	\$ 17	\$ 336	\$ 509	\$ -	\$ -	\$ 1,340	\$ 2,240
Aug	\$ 106	\$ 351	\$ 524	\$ -	\$ -	\$ 1,340	\$ 2,240
Sep	\$ 181	\$ 365	\$ 538	\$ -	\$ -	\$ 1,340	\$ 2,240
Oct	\$ 13	\$ 380	\$ 553	\$ -	\$ -	\$ 1,340	\$ 2,240
Nov	\$ 111	\$ 394		\$ 300	\$ 1,340		
Dec	\$ 236	\$ 409		\$ 415	\$ 1,340		
13-Month Avg.			\$ 466				\$ 1,825

MICHIGAN PUBLIC SERVICE COMMISSION

Case No.: U-21806

Exhibit No.: A-14 (MRB-2)

Schedule: D-1a

4 of 4

Witness: MRBleckman

Date: December 2024

Line No.	(a)		(b)		(c)		(d)		(e)		(f)		(g)		(h)		(i)		(j)		(k)		(l)	
		Actual		Actual		Actual		Actual		Actual		Actual		Actual		Actual		Actual		Actual		Actual		Actual
1	\$	3,956	\$	3,973	\$	3,986	\$	3,998	\$	4,012	\$	4,045	\$	4,044	\$	4,045	\$	4,077	\$	4,067	\$	4,071	\$	4,103

19	Test Year 13-Month Avg	\$	4,629

Test Year 13-Month Avg

Schedule D-1b

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Comparison of Development of Capital Structure
for the Projected Year Ending October 31, 2026

Case No.: U-21806
Exhibit No.: A-14 (MRB-3)
Schedule: D-1b
Page: 1 of 1
Witness: MRBleckman
Date: December 2024

Line No.	(a) Description	(b) Financial Basis	(c) MPSC Ratemaking Basis
I.	LONG-TERM DEBT:		
a.	First Mortgage Bonds	Include	Include
b.	Trust Preferred Securities	Include	Include
c.	Other Subordinated LTD	Include	Include
d.	Unamortized Debt Premium	Include	Include
e.	Unamortized Debt Discount	Include	Include
f.	Unamortized Debt Expense	Include	Include
g.	Current Maturities	Exclude	Include
h.	Capitalized Leases	Include	Exclude
II.	SHORT-TERM DEBT	Include	Include
III.	PREFERRED STOCK EXPENSE		
a.	Preferred Stock	Include	Include
b.	Trust Preferred Securities	Exclude	Exclude
c.	Preferred Stock Expense	Include	Include
IV.	COMMON EQUITY		
a.	Common Stock Issued	Include	Include
b.	Premium on Common Stock	Include	Include
c.	Donations Received From Stockholders	Include	Include
d.	Common Stock Expense	Include	Include
e.	Gain on Reacquired Stock	Include	Include
f.	Miscellaneous Paid In Capital	Include	Include
g.	Mark-to-Market Accounting	Include	Exclude
h.	Appropriated Retained Earnings	Include	Include
i.	Unappropriated Retained Earnings	Include	Include
j.	FAS 90 (Abandoned Plant)	Include	Include
V.	DEFERRED ITC	Exclude	Include
VI.	DEFERRED TAXES	Exclude	Include
VII.	DEFERRED JDITC	Exclude	Include

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company

Cost of Long-Term Debt
for the Projected Year Ending October 31, 2026

Schedule D-2

Case No.: U-21806
Exhibit No.: A-14 (MRB-4)
Schedule: D-2
Page: 1 of 1
Witness: MRBleckman
Date: December 2024

Line No.	(a) Description	(b) Original Issue Date	(c) Stated Maturity Date	(d) Interest Rate (%)	(d1) Interest Payments Per Year	(e) Amount of Offering	(f) Price to Public (%)	(g) Underwriting Expenses (%)	(g1) Underwriting Expenses (\$000)	(g2) Financing Expenses (%)	(g3) Financing Expenses (\$000)	(g4) (Premium) Discount (\$000)	(h) Net Proceeds to the Company (%)	(i) Cost Based on Net Proceeds (%)	(j) Amount Outstanding (\$000)	(k) Annual Cost (\$000)
1	Mortgage Bonds															
2	5.800%	11-Aug-05	15-Sep-35	5.800%	2	175,000	98.81%	0.875%	1,531.25	0.17%	299.97	337.75	98.761%	5.8879%	175,000	10,304
3	6.170%	01-Sep-10	01-Sep-40	6.170%	2	50,000	100.00%	0.900%	453.04	0.08%	38.99	0.00	99.016%	6.2430%	50,000	3,121
4	4.970%	15-Oct-10	15-Oct-40	4.970%	2	50,000	100.00%	0.900%	250.00	0.04%	19.58	0.00	99.461%	5.0049%	50,000	2,502
5	3.390%	17-Dec-12	15-Dec-27	3.390%	2	35,500	100.00%	0.501%	178.03	0.04%	13.76	0.00	99.460%	3.4364%	35,500	1,220
6	4.310%	17-Dec-12	15-Dec-42	4.310%	2	283,000	100.00%	0.900%	3,318.92	0.03%	68.78	0.00	99.472%	4.3416%	283,000	11,418
7	4.310%	17-Dec-12	15-Dec-42	4.310%	2	283,000	100.00%	0.900%	3,318.92	0.03%	68.78	0.00	99.472%	4.3416%	283,000	11,418
8	4.350%	18-Aug-14	31-Aug-64	4.350%	2	250,000	99.14%	0.875%	2,187.50	0.12%	309.64	2,157.50	98.138%	4.4430%	250,000	11,107
9	4.100%	06-Nov-15	15-Nov-45	4.100%	2	250,000	99.14%	0.875%	2,187.50	0.12%	309.64	2,157.50	98.138%	4.4430%	250,000	11,107
10	4.100%	06-Nov-15	15-Nov-45	4.100%	2	250,000	99.14%	0.875%	2,187.50	0.12%	309.64	2,157.50	98.138%	4.4430%	250,000	11,107
11	3.250%	10-Aug-16	15-Aug-46	3.250%	2	450,000	99.22%	0.875%	3,937.50	0.19%	821.46	3,501.00	98.164%	3.3474%	450,000	15,063
12	3.950%	22-Feb-17	15-Jul-47	3.950%	2	350,000	99.58%	0.875%	3,062.50	0.19%	669.34	1,483.00	98.516%	4.0350%	350,000	14,122
13	3.18%	28-Sep-17	28-Sep-37	3.180%	2	40,000	100.00%	0.401%	120.48	0.03%	12.80	0.00	99.667%	3.2082%	40,000	1,283
14	3.52%	28-Sep-17	28-Sep-52	3.520%	2	125,000	100.00%	0.301%	501.98	0.04%	53.33	0.00	99.556%	3.5512%	125,000	4,439
15	3.86%	28-Sep-17	28-Sep-52	3.860%	2	20,000	100.00%	0.703%	140.96	0.07%	14.93	0.00	99.223%	3.9009%	20,000	780
16	3.52%	15-Nov-17	15-Nov-47	3.520%	2	210,000	100.00%	0.402%	840.33	0.04%	86.81	0.00	99.557%	3.5511%	210,000	7,457
17	3.52%	15-Nov-17	15-Nov-47	3.520%	2	210,000	100.00%	0.402%	840.33	0.04%	86.81	0.00	99.557%	3.5511%	210,000	7,457
18	4.050%	14-May-18	15-May-48	4.050%	2	300,000	98.97%	0.703%	2,182.50	0.20%	210.61	2,170.00	97.885%	4.1737%	300,000	11,710
19	4.050%	14-May-18	15-May-48	4.050%	2	300,000	98.97%	0.703%	2,182.50	0.20%	210.61	2,170.00	97.885%	4.1737%	300,000	11,710
20	3.68%	01-Oct-18	01-Oct-48	3.680%	2	100,000	100.00%	0.145%	145.00	0.03%	13.99	0.00	99.841%	3.7009%	100,000	22,955
21	4.01%	01-Oct-18	01-Oct-38	4.010%	2	215,000	100.00%	0.323%	694.00	0.03%	56.32	0.00	99.651%	4.0356%	215,000	8,677
22	4.28%	01-Oct-18	01-Oct-57	4.280%	2	185,000	100.00%	0.629%	1,164.00	0.05%	87.47	0.00	99.324%	4.3160%	185,000	17,985
23	3.800%	13-Nov-18	15-Nov-28	3.800%	2	300,000	98.75%	0.650%	1,950.00	0.10%	305.05	744.00	99.000%	3.9217%	300,000	11,765
24	3.500%	15-Apr-19	15-Apr-49	3.500%	2	300,000	98.62%	0.875%	2,812.50	0.18%	862.10	2,101.00	98.356%	4.4363%	300,000	24,400
25	3.500%	15-Apr-19	15-Apr-49	3.500%	2	300,000	98.62%	0.875%	2,812.50	0.18%	862.10	2,101.00	98.356%	4.4363%	300,000	24,400
26	3.100%	03-Sep-19	15-Sep-59	3.100%	2	550,000	99.29%	0.875%	4,812.50	0.19%	526.98	3,989.50	98.320%	3.1857%	550,000	17,521
27	Floating Rate FMB	19-Sep-19	15-Sep-69	3.060%	4	75,649	100.00%	1.000%	756.49	0.99%	175.55	0.00	98.007%	3.1392%	75,649	2,375
28	3.500%	26-Mar-20	01-Aug-51	3.500%	2	575,000	100.00%	0.875%	5,031.25	0.22%	1,261.45	0.00	98.906%	3.5580%	575,000	20,459
29	2.500%	13-May-20	01-May-60	2.500%	2	525,000	100.00%	0.875%	4,583.75	0.17%	905.40	0.00	98.953%	2.5419%	525,000	13,345
30	Floating Rate FMB	20-May-20	20-May-70	3.060%	4	134,349	100.00%	1.000%	1,343.49	0.29%	390.52	0.00	98.709%	3.1110%	134,349	4,180
31	Floating Rate FMB	07-Oct-20	07-Oct-70	3.060%	4	126,437	100.00%	1.000%	1,264.37	0.25%	315.63	0.00	98.750%	3.1093%	126,437	3,933
32	2.650%	02-Aug-21	15-Aug-52	2.650%	2	300,000	99.92%	0.875%	2,625.00	0.19%	368.00	252.00	98.651%	2.7049%	300,000	8,115
33	4.650%	11-Aug-21	15-Aug-51	4.650%	2	450,000	99.83%	0.875%	3,825.00	0.26%	900.00	319.50	98.854%	4.7679%	450,000	19,266
34	4.200%	11-Jan-22	01-Sep-52	4.200%	2	425,000	99.83%	0.875%	3,592.50	0.26%	900.00	319.50	98.854%	4.2679%	425,000	19,266
35	4.650%	10-Jan-22	01-Mar-28	4.650%	2	450,000	99.83%	0.600%	2,550.00	0.20%	850.00	790.50	99.014%	4.8680%	450,000	20,689
36	4.625%	23-Feb-23	15-May-33	4.625%	2	700,000	100.00%	0.650%	4,550.00	0.20%	1,400.00	0.00	99.150%	4.7300%	700,000	33,110
37	5.24%	15-May-23	15-May-26	5.240%	2	115,000	100.00%	0.875%	1,006.25	0.20%	230.00	0.00	98.925%	5.6345%	61,923	3,489
38	5.07%	15-May-23	15-May-29	5.070%	2	95,000	100.00%	0.875%	437.50	0.20%	100.00	0.00	98.925%	5.2814%	50,000	2,641
39	5.17%	15-May-23	15-May-32	5.170%	2	95,000	100.00%	0.875%	831.25	0.20%	190.00	0.00	98.925%	5.3219%	95,000	5,056
40	5.38%	15-May-23	15-May-37	5.380%	2	140,000	100.00%	0.875%	1,225.00	0.20%	260.00	0.00	98.925%	5.4910%	140,000	7,687
41	4.600%	09-Aug-23	30-Aug-23	4.600%	2	600,000	99.77%	0.600%	3,600.00	0.16%	426.46	2,000.00	98.925%	4.6804%	600,000	28,151
42	4.600%	09-Aug-23	30-Aug-23	4.600%	2	600,000	99.77%	0.600%	3,600.00	0.16%	426.46	2,000.00	98.925%	4.6804%	600,000	28,151
43	4.700%	05-Aug-24	15-Jan-30	4.700%	2	700,000	99.78%	0.600%	4,200.00	0.11%	795.00	1,575.00	99.063%	4.8975%	700,000	34,283
44	New Debt Issue #1	01-May-25	01-May-55	5.660%	2	475,000	100.00%	0.875%	4,156.25	0.20%	950.00	0.00	98.925%	5.7355%	475,000	27,244
45	New Debt Issue #2	01-Aug-25	01-Aug-55	5.660%	2	500,000	100.00%	0.875%	4,375.00	0.20%	1,050.00	0.00	98.925%	5.7355%	500,000	28,677
46	New Debt Issue #3	02-May-56	02-May-56	5.670%	2	525,000	100.00%	0.875%	4,583.75	0.20%	1,050.00	0.00	98.925%	5.7456%	242,308	13,922
47	New Debt Issue #4	01-Aug-56	01-Aug-56	5.670%	2	425,000	100.00%	0.875%	3,718.75	0.20%	1,850.00	0.00	98.925%	5.7456%	98,077	5,635
48	Total Mortgage Bonds														\$12,657,303	\$43,166

51	Other Long-Term Debt															
52	PCRB - MSF LORB - 19	01-Oct-19	01-Oct-49	3.350%	2	75,000	100.00%	0.592%	443.75	0.89%	669.74	0.00	98.515%	3.4296%	75,000	2,572
53	PCRB - MSF LORB - 21	07-Oct-21	01-Apr-35	0.875%	2	35,000	100.00%	0.600%	210.00	0.90%	315.00	0.00	98.500%	0.9941%	35,000	348
54															\$ 110,000	\$ 2,920

55	Total Long-Term Debt															
56																
57																
58	Amortization of Losses on Reacquired Debt with Refunding (including Call Premiums)															
59																
60	Total Long-Term Debt Before Unamortized Expense and Premium															
61																
62	Unamortized Debt Discount, Expense and Premium															
63																
64	Total Long-Term Debt Balance															
65																
66	Annual Cost															
67																
68																
69	Calculations:															
70	Column (i) = Yield formula based on inputs from column (b); column (c), column (d), and column (h) calculated on an annualized basis.															
71	Column (j) = Represents the average amount of debt outstanding for the test year.															
72	Column (k) = column (j) * column (i).															
73	Lines 37, 46, and 47 - As this is a partial year debt outstanding, pro-rata interest expense are used which would result															
74	in the same cost rate as an annual analysis, but provides more accurate average debt balance for the test year. This would make															
75	the total debt balance line fit to the debt balance shown on Exhibit A-14 (MRB-2), Schedule D-1a, pg. 2.															
76	Line 58 - Amortization of losses on reacquired debt projected for the test year ending October 31, 2026.															
77	Projected SOFR Rate	Test Year Avg.														
78																
79	Bloomberg (Oct. 24, 2024)	3.36%														
80																

60	Total Long-Term Debt Before Unamortized Expense and Premium																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

Schedule D-3

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
Cost of Short-Term Debt
for the Projected Year Ending October 31, 2026
(in millions)

Case No.: U-21806
Exhibit No.: A-14 (MRB-5)
Schedule: D-3
Page: 1 of 2
Witness: MRBleckman
Date: December 2024

Line No.		(a) Average Borrowings	(b) Cost of Borrowings	(c) Cost Rate
1	Short-Term Debt	\$ 201.4	\$ 9.1	4.52%

Sources:

Column (a): Exhibit A-14 (MRB-7), Schedule D-6.
Column (b): Exhibit A-14 (MRB-5), Schedule D-3, page 2.
Column (c) = column (b)/column (a).

Schedule D-3

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
 Cost of Short-Term Debt
 for the Projected Year Ending October 31, 2026
 (in millions)

Case No.: U-21806
 Exhibit No.: A-14 (MRB-5)
 Schedule: D-3
 Page: 2 of 2
 Witness: MRBleckman
 Date: December 2024

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	
Line No.	Summary				Test Year Assumption				
1		Agreement		Facility	Less: Avg.	Less: Letters	Amount	Upfront	
2	Facility	Date	Expiration	Amount	Borrowings	of Credit	Unused ^a	Fee Amort	
3					(A)	(B)	(C)	(D)	
4	1. JPMorgan Revolver	Jun. 2018	Dec. 2027	\$ 1,100.0	\$ -	\$ 28.1	\$ 1,071.9	\$ 0.4	
5	2. Commercial Paper Facility	Sep. 2014	N/A	\$ 500.0	\$ 201.4	\$ -	\$ -	\$ -	
6	3. Scotiabank Revolver	Nov. 2018	Nov. 2025	\$ 250.0	\$ -	\$ 56.7	\$ 193.3	\$ 0.3	
7									
8									
9									
10	Cost of Short-Term Debt								
11									
12	(A) Interest on Borrowings - Calculated on the projected drawn balance at SOFR plus the spread on borrowings.								
13									
14									
15	Facility	SOFR ^b	Plus: Spread	Projected Rate	Avg. Borrowings	Cost			
16	1. JPMorgan Revolver	3.36%	0.850%	4.21%	\$ -	\$ -			
17	2. Commercial Paper Facility	3.36%	0.000%	3.36%	201.4	6.8			
18	3. Scotiabank Revolver	3.36%	0.800%	4.16%	-	-			
19						\$ 6.8			
20									
21									
22	(B) Letter of Credit Fees - Calculated on the projected letters of credit outstanding at a rate equal to the spread.								
23									
24	Facility	Letter of Credit Type		Projected Rate	Letters of Credit	Cost			
25	1. JPMorgan Revolver	Regular Operating		0.850%	\$ 28.1	\$ 0.2			
26	2. Commercial Paper Facility	N/A		N/A	-	-			
27	3. Scotiabank Revolver	MISO Margin & Other		0.800%	56.7	0.5			
28						\$ 0.7			
29									
30	(C) Unused (Commitment) Fees - Calculated on the unused portion of the revolver at a rate stated in the facility agreement.								
31									
32				Projected Rate	Amount Unused ^a	Cost			
33									
34	1. JPMorgan Revolver			0.070%	\$ 1,071.9	\$ 0.8			
35	2. Commercial Paper Facility			N/A	-	-			
36	3. Scotiabank Revolver			0.075%	\$ 193.3	\$ 0.1			
37						\$ 0.9			
38									
39	(D) Amortization / Expense of Facility Fees - Fees paid upfront at the inception or amendment to the facility, amortized over the life of the facility.								
40									
41						Annual Cost			
42									
43	1. JPMorgan Revolver					\$ 0.4			
44	2. Commercial Paper Facility					-			
45	3. Scotiabank Revolver					0.3			
46						\$ 0.7			
47									
48									
49	Total Cost of Short-Term Debt					\$ 9.1			

^a Commercial Paper drawn balances go against, or are "backstopped," by the Company's JPMorgan Revolver. To the extent amounts are borrowed under the Commercial Paper Facility, the availability of the JPMorgan Revolver are reduced. These borrowings do not, however, reduce the "unused" portion of the revolver in calculating the unused (commitment) fees.

^b Projected SOFR rate per Exhibit A-14 (MRB-4), Schedule D-2. Forecasted SOFR assumed to closely approximate commercial paper rate.

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Cost of Preferred Stock

for the Projected Year Ending October 31, 2026

Schedule D-4

Case No.: U-21806

Exhibit No.: A-14 (MRB-6)

Schedule: D-4

Page: 1 of 1

Witness: MRBleckman

Date: December 2024

Line No.	Description	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)								
												Annual Dividend	Par Value	Finance Expense	(Premium) Discount	Net Proceeds Received By Company	Number Of Shares Outstanding	Total Value Of Net Proceeds (000)	Annual Cost (000)
PREFERRED STOCK:																			
1	\$4.500 Series		\$4.500	\$100.00	\$0.00	\$0.00	\$100.00	373,148	\$37,315	4.50%	\$1,679								

Calculations:

Column (i) = (column (h)*column (b))/column (f))/column (h).

Column (j) = column (h)*column (i).

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
Short-Term Debt Utilization
for the Projected Year Ending October 31, 2020
(in millions)

Case No.: U-21806
Exhibit No.: A-14 (MRB-7)
Schedule: D-6
Page: 1 of 1
Witness: MRBleckman
Date: December 2024

Ending Short-Term Debt																								
Line No.	(a)		(b)		(c)		(d)		(e)		(f)		(g)		(h)		(i)		(j)		(k)		(l)	
	Actual		Actual		Actual		Actual		Actual		Actual		Actual		Actual		Actual		Actual		Actual		Actual	
	Jan-23		Feb-23		Mar-23		Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23		Oct-23		Nov-23		Dec-23	
1	\$	500	\$	19	\$	-	\$	-	\$	-	\$	-	\$	24	\$	85	\$	310	\$	420	\$	704	\$	93
2																								
3																								
4																								
5	Jan-24		Feb-24		Mar-24		Apr-24		May-24		Jun-24		Jul-24		Aug-24		Sep-24		Oct-24		Nov-24		Dec-24	
6																								
7	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	13	\$	203	\$	303
8																								
9																								
10	Jan-25		Feb-25		Mar-25		Apr-25		May-25		Jun-25		Jul-25		Aug-25		Sep-25		Oct-25		Nov-25		Dec-25	
11																								
12	\$	194	\$	15	\$	-	\$	-	\$	-	\$	-	\$	-	\$	80	\$	345	\$	385	\$	490	\$	475
13																								
14																								
15	Jan-26		Feb-26		Mar-26		Apr-26		May-26		Jun-26		Jul-26		Aug-26		Sep-26		Oct-26					
16																								
17	\$	255	\$	145	\$	-	\$	-	\$	-	\$	-	\$	-	\$	98	\$	320	\$	450				
18																								
19	Test Year 13-Month Avg																				\$ 201			

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
Current and Historical Credit Ratings
for the Projected Year Ending October 31, 2026

Case No.: U-21806
Exhibit No.: A-30 (MRB-8)
Page: 1 of 1
Witness: MRBleckman
Date: December 2024

Line No.	Credit Ratings					
	(a)	(b)	(c)	(d)	(e)	(f)
	Standard & Poors Ratings at Year End					
	Current	2023	2022	2021	2020	2019
1						
2						
3	Consumers Energy Company					
4	Senior Secured Debt	A	A	A	A	A
5	Commercial Paper	A-2	A-2	A-2	A-2	A-2
6	Senior Unsecured Debt	N/A	N/A	N/A	N/A	N/A
7	Hybrid Preferred Securities	N/A	N/A	N/A	N/A	N/A
8	Preferred Stock	N/A	N/A	N/A	N/A	N/A
9	Outlook	Stable	Stable	Stable	Stable	Stable
10						
11	CMS Energy Corporation					
12	Senior Secured Debt	N/A	N/A	N/A	N/A	N/A
13	Senior Unsecured Debt	BBB	BBB	BBB	BBB	BBB
14	Junior Subordinated Debt	BBB-	BBB-	BBB-	BBB-	BBB-
15	Hybrid Preferred Securities	N/A	N/A	N/A	N/A	N/A
16	Preferred Stock	BBB-	BBB-	BBB-	N/A	N/A
17	Outlook	Stable	Stable	Stable	Stable	Stable
18						
19						
20						
21						
22	Moody's Ratings at Year End					
23	Current	2023	2022	2021	2020	2019
24	Consumers Energy Company					
25	Senior Secured Debt	A1	A1	A1	Aa3	Aa3
26	Commercial Paper	P-2	P-2	P-2	P-1	P-1
27	Senior Unsecured Debt	N/A	N/A	N/A	N/A	N/A
28	Hybrid Preferred Securities	N/A	N/A	N/A	N/A	N/A
29	Preferred Stock	Baa1	Baa1	Baa1	A3	A3
30	Outlook	Stable	Stable	Stable	Stable	Stable
31						
32	CMS Energy Corporation					
33	Senior Secured Debt	A3	A3	A3	A3	A3
34	Senior Unsecured Debt	Baa2	Baa2	Baa2	Baa1	Baa1
35	Junior Subordinated Debt	Baa3	Baa3	Baa3	Baa2	Baa2
36	Hybrid Preferred Securities	N/A	N/A	N/A	N/A	N/A
37	Preferred Stock	Ba1	Ba1	Ba1	N/A	N/A
38	Outlook	Stable	Stable	Stable	Negative	Stable
39						
40						
41						
42	Fitch Ratings at Year End					
43	Current	2023	2022	2021	2020	2019
44	Consumers Energy Company					
45	Senior Secured Debt	A+	A+	A+	A+	A+
46	Commercial Paper	F-2	F-2	F-2	F-2	F-2
47	Senior Unsecured Debt	A	A	A	A	A
48	Hybrid Preferred Securities	N/A	N/A	N/A	N/A	N/A
49	Preferred Stock	BBB+	BBB+	BBB+	BBB+	BBB+
50	Outlook	Stable	Stable	Stable	Stable	Stable
51						
52	CMS Energy Corporation					
53	Senior Secured Debt	BBB+	BBB+	BBB+	BBB+	BBB+
54	Senior Unsecured Debt	BBB	BBB	BBB	BBB	BBB
55	Junior Subordinated Debt	BB+	BB+	BB+	BB+	BB+
56	Hybrid Preferred Securities	N/A	N/A	N/A	N/A	N/A
57	Preferred Stock	BB+	BB+	BB+	N/A	N/A
58	Outlook	Stable	Stable	Stable	Stable	Stable

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Recent Utility Corporate Bond Issuances

for the Projected Year Ending October 31, 2026

Case No.: U-21806

Exhibit No.: A-31 (MRB-9)

Page: 1 of 6

Witness: MRBleckman

Date: December 2024

Line No.	(a) Issue Date	(b) Ticker	(c) Issuer	(d) Type	(e) Amt (\$mm)	(f) Coupon	(g) Ratings		(h) Maturity	(i) Issue Spread (bp)
							Moody's	S&P		
1	03/07/22	SRE	San Diego Gas & Electric Company	Secured	500	3.700%	A1	A	03/15/52	+155
2	03/08/22	SRE	Southern California Gas Company	Unsecured	700	2.950%	A2	A	04/15/27	+125
3	03/08/22	AVA	Avista Corporation	Secured	400	4.000%	A3	A-	04/01/52	+175
4	03/08/22	EXC	Commonwealth Edison	Secured	300	3.150%	A1	A	03/15/32	+130
5	03/08/22	EXC	Commonwealth Edison	Secured	450	3.850%	A1	A	03/15/52	+160
6	03/09/22	PEG	Public Service Electric & Gas Company	Secured	500	3.100%	A1	A	03/15/32	+120
7	03/10/22	EVRG	Eversource Energy	Secured	250	3.761%	A3	A	03/15/32	+175
8	03/11/22	NGGLN	Boston Gas Company	Unsecured	400	3.757%	Baa1	BBB+	03/16/32	+175
9	03/14/22	PSD	Puget Energy Inc	Secured	450	4.224%	Baa3	BBB-	03/15/32	+210
10	03/14/22	DUK	Duke Energy Progress	Secured	500	3.400%	Aa3	A	04/01/32	+130
11	03/14/22	DUK	Duke Energy Progress	Secured	400	4.000%	Aa3	A	04/01/52	+155
12	03/17/22	NEE	NextEra Energy Capital Holdings	Unsecured	1,100	2.940%	Baa1	BBB+	03/21/24	+100
13	03/17/22	NEE	NextEra Energy Capital Holdings	Unsecured	400	FRN	Baa1	BBB+	03/21/24	SOFR+102
14	03/17/22	SWX	Southwest Gas	Unsecured	600	4.050%	Baa1	BBB	03/15/32	+190
15	03/21/22	AEE	Union Electric	Secured	525	3.900%	A2	A	04/01/52	+135
16	03/21/22	SRE	Sempra Energy	Unsecured	750	3.300%	Baa2	BBB	04/01/25	+102
17	03/21/22	SRE	Sempra Energy	Unsecured	500	3.700%	Baa2	BBB	04/01/29	+140
18	04/04/22	OGLETH	Oglethorpe Power Corp	Secured	500	4.500%	Baa1	BBB+	04/01/47	+205
19	04/19/22	BRKHEC	Berkshire Hathaway Energy Company	Unsecured	1,000	4.600%	A3	A-	05/01/53	+163
20	04/27/22	NRUC	National Rural Utilities Cooperative Finance Corp	Secured	300	3.450%	A2	A-	06/15/25	+75
21	05/02/22	SO	Georgia Power Co	Unsecured	700	4.700%	Baa1	BBB+	05/15/32	+175
22	05/02/22	SO	Georgia Power Co	Unsecured	800	5.125%	Baa1	BBB+	05/15/52	+210
23	05/02/22	AWK	American Water Capital Corp	Unsecured	800	4.450%	Baa1	A	06/01/32	+150
24	05/02/22	XEL	Northern States Power Co/MN	Secured	500	4.500%	Aa3	A	06/01/52	+148
25	05/03/22	XEL	Xcel Energy	Unsecured	700	4.600%	Baa1	BBB+	06/01/32	+167
26	05/03/22	PCG	PG&E Wildfire Recovery Funding	Secured	540	3.594%	Aaa	AAA	6/1/2030	+60
27	05/03/22	PCG	PG&E Wildfire Recovery Funding	Secured	540	4.263%	Aaa	AAA	6/1/2036	+125
28	05/03/22	PCG	PG&E Wildfire Recovery Funding	Secured	360	4.377%	Aaa	AAA	6/1/2039	+125
29	05/03/22	PCG	PG&E Wildfire Recovery Funding	Secured	1,260	4.451%	Aaa	AAA	12/1/2047	+125
30	05/03/22	PCG	PG&E Wildfire Recovery Funding	Secured	900	4.674%	Aaa	AAA	12/1/2051	+160
31	05/05/22	SO	Southern Company	Unsecured	863	4.475%	Baa3	BBB	08/01/24	+155
32	05/05/22	SO	Southern Company	Unsecured	863	5.113%	Baa3	BBB	08/01/27	+200
33	05/10/22	VST	Vistra Operations Company	Secured	400	4.875%	Baa3	BBB-	05/13/24	+225
34	05/10/22	VST	Vistra Operations Company	Secured	1,100	5.125%	Baa3	BBB-	05/13/25	+238
35	05/10/22	DUK	Piedmont Natural Gas Company	Unsecured	400	5.050%	A3	BBB+	05/15/52	+197
36	05/10/22	XEL	Public Service Co of Colorado	Secured	300	4.100%	A1	A	06/01/32	+120
37	05/10/22	XEL	Public Service Co of Colorado	Secured	400	4.500%	A1	A	06/01/52	+145
38	05/12/22	ES	NSTAR Electric Company	Unsecured	450	4.550%	A1	A	06/01/52	+157
39	05/16/22	AEP	AEP Texas	Unsecured	500	4.700%	Baa2	A-	05/15/32	+185
40	05/16/22	AEP	AEP Texas	Unsecured	500	5.250%	Baa2	A-	05/15/52	+215
41	05/16/22	D	Virginia Electric and Power Company	Unsecured	600	3.750%	A2	BBB+	05/15/27	+98
42	05/16/22	D	Virginia Electric and Power Company	Unsecured	600	4.625%	A2	BBB+	05/15/52	+160
43	05/17/22	EXC	PECO Energy Company	Secured	350	4.600%	Aa3	A	05/15/52	+147
44	05/17/22	ONCRTL	Oncor Electric Delivery Company	Secured	400	4.150%	A2	A+	06/01/32	+122
45	05/17/22	ONCRTL	Oncor Electric Delivery Company	Secured	400	4.600%	A2	A+	06/01/52	+147
46	05/18/22	WTRG	Essential Utilities	Unsecured	500	5.300%	Baa2	A-	05/01/52	+225
47	05/18/22	EIX	Southern California Edison	Secured	300	4.200%	A3	A-	06/01/25	+140
48	05/18/22	EIX	Southern California Edison	Secured	600	4.700%	A3	A-	06/01/27	+185
49	05/18/22	EIX	Southern California Edison	Secured	350	5.450%	A3	A-	06/01/52	+240
50	05/23/22	XEL	Southwestern Public Service Co	Secured	200	5.150%	A3	A	06/01/52	+210
51	06/01/22	EXC	Baltimore Gas & Electric	Unsecured	500	4.550%	A3	A	06/01/52	+145
52	06/06/22	PCG	Pacific Gas and Electric	Secured	450	4.950%	Baa3	BBB-	06/08/25	+205
53	06/06/22	PCG	Pacific Gas and Electric	Secured	450	5.450%	Baa3	BBB-	06/15/27	+245
54	06/06/22	PCG	Pacific Gas and Electric	Secured	600	5.900%	Baa3	BBB-	06/15/32	+290
55	06/07/22	NI	NISource Inc	Unsecured	350	5.000%	Baa2	BBB+	06/15/52	+190
56	06/07/22	AEP	AEP Transmission	Unsecured	550	4.500%	A2	A-	06/15/52	+140
57	06/07/22	CNP	CenterPoint Energy Resources	Unsecured	500	4.400%	A3	BBB+	07/01/32	+145
58	06/08/22	ENELIM	Enel Finance International N.V.	Unsecured	750	4.250%	Baa1	BBB+	06/15/25	+145
59	06/08/22	ENELIM	Enel Finance International N.V.	Unsecured	750	4.625%	Baa1	BBB+	06/15/27	+165
60	06/08/22	ENELIM	Enel Finance International N.V.	Unsecured	1,000	5.000%	Baa1	BBB+	06/15/32	+215
61	06/08/22	ENELIM	Enel Finance International N.V.	Unsecured	1,000	5.500%	Baa1	BBB+	06/15/52	+240
62	06/08/22	DUK	Duke Energy Corporation	Unsecured	600	3.100%	Baa2	BBB	06/15/28	+130
63	06/08/22	DUK	Duke Energy Corporation	Unsecured	500	3.850%	Baa2	BBB	06/15/34	+175
64	06/21/22	NEE	NextEra Energy Capital Holdings	Unsecured	750	4.200%	Baa1	BBB+	06/20/24	+100
65	06/21/22	NEE	NextEra Energy Capital Holdings	Unsecured	1,000	4.450%	Baa1	BBB+	06/20/25	+110
66	06/21/22	NEE	NextEra Energy Capital Holdings	Unsecured	1,250	4.625%	Baa1	BBB+	07/15/27	+125
67	06/21/22	NEE	NextEra Energy Capital Holdings	Unsecured	1,000	5.000%	Baa1	BBB+	07/15/32	+170
68	06/22/22	ES	Eversource Energy	Unsecured	900	4.200%	Baa1	BBB+	06/27/24	+115
69	06/22/22	ES	Eversource Energy	Unsecured	600	4.600%	Baa1	BBB+	07/01/27	+140
70	07/07/22	TE	Tampa Electric	Unsecured	300	3.875%	A3	BBB+	7/12/2024	+85
71	07/07/22	TE	Tampa Electric	Unsecured	300	5.000%	A3	BBB+	7/15/2052	+180
72	07/13/22	PCG	PG&E Wildfire Recovery Funding	Secured	613	4.017%	Aaa	AAA	07/08/27	+100
73	07/13/22	PCG	PG&E Wildfire Recovery Funding	Secured	600	4.719%	Aaa	AAA	08/11/34	+170
74	07/13/22	PCG	PG&E Wildfire Recovery Funding	Secured	500	5.078%	Aaa	AAA	06/24/39	+183
75	07/13/22	PCG	PG&E Wildfire Recovery Funding	Secured	1,150	5.209%	Aaa	AAA	12/07/44	+190
76	07/13/22	PCG	PG&E Wildfire Recovery Funding	Secured	1,037	5.097%	Aaa	AAA	06/14/50	+195
77	08/01/22	CMS	Consumers Energy	Secured	350	3.600%	A1	A	08/15/32	+100
78	08/01/22	CMS	Consumers Energy	Secured	450	4.200%	A1	A	09/01/52	+125
79	08/01/22	EIX	Edison International	Unsecured	400	4.700%	Baa3	BBB-	08/15/25	+190
80	08/02/22	NEE	NextEra Energy Capital Holdings	Unsecured	1,500	4.255%	Baa1	BBB+	09/01/24	+105
81	08/02/22	NGGLN	Brooklyn Union Gas Company	Unsecured	400	4.632%	Baa2	BBB+	08/05/27	+177
82	08/02/22	NGGLN	Brooklyn Union Gas Company	Unsecured	400	4.866%	Baa2	BBB+	08/05/32	+212
83	08/03/22	DTE	DTE Energy Company	Unsecured	1,300	4.220%	Baa2	BBB	09/01/24	+113
84	08/04/22	OGS	One Gas Inc	Unsecured	300	4.250%	A3	BBB+	09/01/32	+165
85	08/08/22	DUK	Duke Energy Corporation	Unsecured	900	4.300%	Baa2	BBB	03/15/28	+142
86	08/08/22	DUK	Duke Energy Corporation	Unsecured	1,150	4.500%	Baa2	BBB	08/15/32	+177
87	08/08/22	DUK	Duke Energy Corporation	Unsecured	1,150	5.000%	Baa2	BBB	08/15/52	+202
88	08/08/22	LNT	Wisconsin Power & Light	Unsecured	600	3.950%	A3	A	09/01/32	+132
89	08/09/22	D	Dominion Energy Inc	Unsecured	400	4.350%	Baa2	BBB	08/15/32	+165
90	08/09/22	D	Dominion Energy Inc	Unsecured	600	4.850%	Baa2	BBB	08/15/52	+190
91	08/09/22	SO	Alabama Power Company	Unsecured	550	3.750%	A1	A-	09/01/27	+80
92	08/09/22	SO	Alabama Power Company	Unsecured	450	3.940%	A1	A-	09/01/32	+115
93	08/10/22	NRUC	National Rural Utilities Cooperative Finance	Unsecured	400	4.150%	A1	A-	12/15/32	+140
94	08/15/22	AEE	Ameren Illinois Company	Secured	500	3.850%	A1	A	09/01/32	+108
95	08/16/22	EXC	PECO Energy Company	Secured	425	4.375%	Aa3	A	08/15/52	+127
96	08/18/22	ETR	Entergy Louisiana LLC	Secured	500	4.750%	A2	A	09/15/52	+163
97	08/22/22	ETR	Entergy Texas Inc	Secured	325	5.000%	A3	A	09/15/52	+178
98	09/06/22	SO	Southern Company Gas	Unsecured	500	5.150%	Baa1	BBB+	09/15/32	+185
99	09/06/22	ONCRTL	Oncor Electric Delivery	Secured	700	4.550%	A2	A+	09/15/32	+123
100	09/06/22	ONCRTL	Oncor Electric Delivery	Secured	500	4.950%	A2	A+	09/15/52	+148

FRN: Floating Rate Note

SOFR: Secured Overnight Financing Rate

MS: Mid-Swap - The average of the bid and offer swap rates for a reference maturity

Source: Barclays Bank

Line No.	(a) Issue Date	(b) Ticker	(c) Issuer	(d) Type	(e) Amt (\$mm)	(f) Coupon	(g) Moody's	(h) S&P	(i) Maturity	(j) Issue Spread (bp)
							Ratings			
1	09/08/22	ITC	ITC Holdings Corporation	Unsecured	600	4.950%	Baa2	BBB+	09/22/27	+158
2	09/08/22	TVA	Tennessee Valley Authority	Unsecured	500	4.250%	Aaa	AA+	09/15/52	+100
3	09/12/22	CNP	CenterPoint Energy Houston Electric	Secured	500	4.450%	A2	A	10/01/32	+115
4	09/12/22	CNP	CenterPoint Energy Houston Electric	Secured	300	4.850%	A2	A	10/01/52	+138
5	09/12/22	ES	NSTAR Electric Company	Unsecured	400	4.950%	A1	A	09/15/52	+147
6	09/12/22	NGGLN	Niagara Mohawk Power	Unsecured	500	5.783%	Baa1	BBB+	09/16/52	+225
7	09/14/22	WEC	Wisconsin Electric Power Company	Unsecured	500	4.750%	A2	A-	09/30/32	+135
8	09/22/22	WEC	WEC Energy Group	Unsecured	500	5.000%	Baa1	BBB+	09/27/25	+90
9	09/22/22	WEC	WEC Energy Group	Unsecured	400	5.150%	Baa1	BBB+	10/01/27	+128
10	09/22/22	FE	Ohio Edison	Unsecured	300	5.500%	A3	BBB	01/15/33	+185
11	09/28/22	ATO	Atmos Energy	Unsecured	300	5.450%	A1	A-	10/15/32	+152
12	09/28/22	ATO	Atmos Energy	Unsecured	500	5.750%	A1	A-	10/15/52	+195
13	10/03/22	SO	The Southern Co	Unsecured	500	5.150%	Baa2	BBB	10/06/25	+110
14	10/03/22	SO	The Southern Co	Unsecured	500	5.700%	Baa2	BBB	10/15/32	+205
15	10/03/22	EDPPL	EDP Finance BV	Unsecured	500	6.300%	Baa3	BBB	10/11/27	+245
16	10/06/22	ENELIM	Enel Finance International NV	Unsecured	750	6.800%	Baa1	BBB+	10/14/25	+275
17	10/06/22	ENELIM	Enel Finance America LLC	Unsecured	1,000	7.100%	Baa1	BBB+	10/14/27	+325
18	10/06/22	ENELIM	Enel Finance International NV	Unsecured	1,250	7.500%	Baa1	BBB+	10/14/32	+400
19	10/06/22	ENELIM	Enel Finance International NV	Unsecured	1,000	7.750%	Baa1	BBB+	10/14/52	+440
20	10/17/22	BRKHEC	Nevada Power Company	Secured	400	5.900%	A2	A+	05/01/53	+190
21	10/20/22	NRUC	National Rural Utilities Cooperative Finance	Unsecured	500	5.450%	A2	A-	10/30/25	+85
22	10/20/22	NRUC	National Rural Utilities Cooperative Finance	Unsecured	350	5.800%	A2	A-	01/15/33	+158
23	10/31/22	AEP	American Electric Power Co Inc	Unsecured	500	5.750%	Baa2	BBB+	11/1/2027	+155
24	10/31/22	AEP	American Electric Power Co Inc	Unsecured	500	5.950%	Baa2	BBB+	11/1/2032	+195
25	11/03/22	EIX	Southern California Edison Co	Secured	750	5.950%	A3	A-	11/1/2032	+190
26	11/03/22	EIX	Southern California Edison Co	Secured	750	5.850%	A3	A-	11/1/2027	+150
27	11/04/22	PEG	Public Service Enterprise Group	Unsecured	700	5.850%	Baa2	BBB	11/15/2027	+155
28	11/04/22	PNW	Arizona Public Service Co	Unsecured	400	6.350%	A3	BBB+	12/15/2032	+220
29	11/07/22	EIX	Edison International	Unsecured	550	6.950%	Baa3	BBB-	11/15/2029	+280
30	11/07/22	WEC	Wisconsin Public Service	Unsecured	300	5.350%	A2	A-	11/10/2025	+72
31	11/07/22	SRE	Southern California Gas Co	Secured	600	6.350%	Aa3	A+	11/15/2052	+205
32	11/07/22	DUK	Duke Energy Florida	Secured	500	5.950%	A1	A	11/15/2052	+167
33	11/08/22	AES	Indianapolis Power & Light	Secured	350	5.650%	A2	A-	12/1/2032	+155
34	11/08/22	AEE	Ameren Illinois Co	Secured	350	5.900%	A1	A	12/1/2052	+163
35	11/09/22	ED	Consolidated Edison Co of New York Inc	Unsecured	700	6.150%	Baa1	A-	11/15/2052	+185
36	11/16/22	D	Dominion Energy	Unsecured	850	5.375%	Baa2	BBB	11/15/32	+175
37	11/18/22	PCG	PG&E Recovery Funding LLC	Secured	215	5.045%	Aaa	AAA	07/15/34	+105
38	11/18/22	PCG	PG&E Recovery Funding LLC	Secured	200	5.256%	Aaa	AAA	01/15/40	+135
39	11/18/22	PCG	PG&E Recovery Funding LLC	Secured	568	5.536%	Aaa	AAA	07/15/49	+140
40	11/21/22	NGGLN	New England Power Company	Unsecured	300	5.936%	A3	BBB+	11/25/52	+200
41	11/28/22	EVERG	Evergy Missouri West	Secured	300	5.150%	A3	A	12/15/2027	+130
42	11/29/22	SWX	Southwest Gas Corp	Unsecured	300	5.800%	Baa1	BBB	12/1/2027	+190
43	11/29/22	BRKHEC	PacifiCorp	Secured	1,100	5.350%	A1	A+	12/1/2053	+153
44	11/30/22	PEG	Public Service Electric and Gas Co	Secured	400	4.900%	A1	A	12/15/32	+113
45	12/05/22	DUK	Duke Energy Corporation	Unsecured	500	5.000%	Baa2	BBB	12/08/25	+88
46	12/05/22	DUK	Duke Energy Corporation	Unsecured	500	5.000%	Baa2	BBB	12/08/27	+123
47	12/07/22	NRUC	National Rural Utilities Cooperative Finance Corp	Unsecured	400	4.800%	A2	A-	3/15/2028	+120
48	01/03/23	ES	Connecticut Light & Power Company	Secured	500	5.250%	A1	A+	01/15/53	+135
49	01/03/23	OGE	Oklahoma Gas & Electric	Unsecured	450	5.400%	A3	A-	01/15/33	+165
50	01/03/23	EXC	Commonwealth Edison	Secured	400	4.900%	A1	A	02/01/33	+115
51	01/03/23	EXC	Commonwealth Edison	Secured	575	5.300%	A1	A	02/01/53	+140
52	01/03/23	DUK	Duke Energy Carolinas	Secured	900	4.950%	Aa3	A	1/15/2033	+120
53	01/03/23	DUK	Duke Energy Carolinas	Secured	900	5.350%	Aa3	A	1/15/2053	+145
54	01/03/23	AEP	Public Service Co. of Oklahoma	Unsecured	475	5.250%	Baa1	A-	1/15/2033	+150
55	01/03/23	ETR	Entergy Arkansas	Secured	425	5.150%	A2	A	1/15/2033	+140
56	01/03/23	CMS	Consumers Energy	Secured	425	4.650%	A1	A	3/1/2028	+75
57	01/04/23	PCG	Pacific Gas and Electric	Secured	750	6.150%	Baa3	BBB-	1/15/2033	+250
58	01/04/23	PCG	Pacific Gas and Electric	Secured	750	6.750%	Baa3	BBB-	1/15/2053	+295
59	01/04/23	ES	Public Service New Hampshire	Secured	300	5.150%	A1	A+	1/15/2053	+133
60	01/10/23	WEC	WEC Energy Group	Unsecured	650	4.750%	Baa1	BBB+	1/9/2026	+85
61	01/10/23	WEC	WEC Energy Group	Unsecured	450	4.750%	Baa1	BBB+	1/15/2028	+113
62	02/02/23	NRUC	National Rural Utilities	Unsecured	600	4.450%	A2	A-	03/13/26	+70
63	02/02/23	NRUC	National Rural Utilities (Reopening)	Unsecured	200	4.800%	A2	A-	03/15/28	+95
64	02/02/23	NRUC	National Rural Utilities (Reopening)	Secured	300	5.800%	A1	A-	01/15/33	+123
65	02/06/23	NEE	NextEra Energy Capital Holdings	Unsecured	1,250	4.900%	Baa1	BBB+	02/28/28	+110
66	02/06/23	NEE	NextEra Energy Capital Holdings	Unsecured	600	5.000%	Baa1	BBB+	02/28/30	+125
67	02/06/23	NEE	NextEra Energy Capital Holdings	Unsecured	1,000	5.050%	Baa1	BBB+	02/28/33	+140
68	02/06/23	NEE	NextEra Energy Capital Holdings	Unsecured	1,150	5.250%	Baa1	BBB+	02/28/53	+155
69	02/06/23	SR	Spire Missouri Inc	Secured	400	4.800%	A1	A	02/15/33	+120
70	02/13/23	CMS	Consumers Energy	Secured	700	4.625%	A1	A	05/15/33	+97
71	02/13/23	FTSCN	Tucson Electric Power Co	Unsecured	375	5.500%	A3	A-	04/15/53	+175
72	02/16/23	EXC	Exelon Corp	Unsecured	1,000	5.150%	Baa2	BBB	03/15/28	+113
73	02/16/23	EXC	Exelon Corp	Unsecured	850	5.300%	Baa2	BBB	03/15/33	+145
74	02/16/23	EXC	Exelon Corp	Unsecured	650	5.600%	Baa2	BBB	03/15/53	+170
75	02/21/23	CEG	Constellation Energy Generation LLC	Unsecured	750	5.600%	Baa2	BBB	03/01/28	+143
76	02/21/23	CEG	Constellation Energy Generation LLC	Unsecured	600	5.800%	Baa2	BBB	03/01/33	+185
77	02/21/23	CNP	CenterPoint Energy Resources Corp	Unsecured	600	5.250%	A3	BBB+	03/01/28	+115
78	02/21/23	CNP	CenterPoint Energy Resources Corp	Unsecured	600	5.400%	A3	BBB+	03/01/33	+145
79	02/21/23	ED	Consolidated Edison Co of New York Inc	Unsecured	500	5.200%	Baa1	A-	03/01/33	+125
80	02/22/23	NEE	NextEra Energy Capital Holdings Inc	Unsecured	2,500	6.051%	Baa1	BBB+	03/01/25	+120
81	02/27/23	AEE	Union Electric Co	Secured	500	5.450%	A2	A	03/15/53	+155
82	02/27/23	AEP	American Electric Power Co Inc	Unsecured	850	5.625%	Baa2	BBB	03/01/33	+175
83	02/27/23	DTE	DTE Electric Co	Secured	600	5.200%	Aa3	A	04/01/33	+130
84	02/27/23	DTE	DTE Electric Co	Secured	600	5.400%	Aa3	A	04/01/53	+148
85	02/27/23	EIX	Southern California Edison Co	Secured	750	5.300%	A2	A-	03/01/28	+115
86	02/27/23	EIX	Southern California Edison Co	Secured	450	5.700%	A2	A-	03/01/53	+180
87	02/27/23	PPL	PPL Electric Utilities Corp	Secured	600	5.000%	A1	A+	05/15/33	+120
88	02/27/23	PPL	PPL Electric Utilities Corp	Secured	750	5.250%	A1	A+	05/15/53	+145
89	02/28/23	NEE	Florida Power & Light Co	Secured	1,000	5.050%	Aa2	A+	04/01/28	+90
90	02/28/23	NEE	Florida Power & Light Co	Secured	750	5.100%	Aa2	A+	04/01/33	+120
91	02/28/23	NEE	Florida Power & Light Co	Secured	750	5.300%	Aa2	A+	04/01/53	+140
92	03/01/23	EIX	Edison International	Unsecured	500	8.125%	Baa3	BB+	06/15/53	+386
93	03/01/23	ES	Eversource Energy	Unsecured	750	5.450%	Baa1	BBB+	03/01/28	+123
94	03/01/23	NGGLN	KeySpan Gas East Corp	Unsecured	500	5.994%	Baa1	BBB+	03/06/33	+200
95	03/02/23	BKH	Black Hills Corp	Unsecured	350	5.950%	Baa2	BBB+	03/15/28	+170
96	03/02/23	NRG	NRG Energy Inc	Secured	740	7.000%	Baa3	BBB-	03/15/33	+310
97	03/02/23	NRG	NRG Energy Inc	Unsecured	650	10.250%	Ba3	B	PerpNCS	+592
98	03/02/23	NWN	Northwest Natural Gas Co	Secured	100	5.750%	A2	AA-	03/15/33	+170
99	03/06/23	DUK	Duke Energy Progress LLC	Secured	500	5.250%	Aa3	A	03/15/33	+128
100	03/06/23	DUK	Duke Energy Progress LLC	Secured	500	5.350%	Aa3	A	03/15/53	+148

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
Recent Utility Corporate Bond Issuances
for the Projected Year Ending October 31, 2026

Case No.: U-21806
Exhibit No.: A-31 (MRB-9)
Page: 3 of 6
Witness: MRBleckman
Date: December 2024

Line No.	(a) Issue Date	(b) Ticker	(c) Issuer	(d) Type	(e) Amt (\$mm)	(f) Coupon	(g) Moody's	(h) S&P	(i) Maturity	(j) Issue Spread (bp)
							Ratings			
1	03/06/23	SRE	San Diego Gas & Electric Co	Secured	800	5.350%	A1	A	04/01/53	+150
2	03/07/23	EVRG	Evergy Kansas Central Inc	Secured	400	5.700%	A2	A	03/15/53	+185
3	03/08/23	ETR	System Energy Resources Inc	Secured	325	6.000%	Baa1	A	04/15/28	+255
4	03/09/23	AEP	AEP Transmission Co LLC	Secured	700	5.400%	A2	A-	03/15/53	+157
5	03/09/23	IDA	Idaho Power Co	Secured	400	5.500%	A2	A-	03/15/53	+170
6	03/09/23	PPL	Kentucky Utilities Co	Secured	400	5.450%	A1	A	04/15/33	+155
7	03/09/23	PPL	Louisville Gas and Electric Co	Secured	400	5.450%	A1	A	04/15/33	+155
8	03/20/23	CNP	CenterPoint Energy Houston Electric LLC	Secured	600	4.950%	A2	A	04/01/33	+150
9	03/20/23	CNP	CenterPoint Energy Houston Electric LLC	Secured	300	5.300%	A2	A	04/01/53	+165
10	03/20/23	DUK	Duke Energy Ohio Inc	Secured	375	5.250%	A2	A	04/01/33	+175
11	03/20/23	DUK	Duke Energy Ohio Inc	Secured	375	5.650%	A2	A	04/01/53	+200
12	03/21/23	AEP	Indiana Michigan Power Co	Unsecured	500	5.625%	A3	A-	04/01/53	+190
13	03/21/23	DUK	Duke Energy Indiana LLC	Secured	500	5.400%	Aa3	A	04/01/53	+170
14	03/21/23	NI	NISource Inc	Unsecured	750	5.250%	Baa2	BBB+	03/30/28	+155
15	03/21/23	OGE	Oklahoma Gas and Electric Co	Unsecured	350	5.600%	A3	A-	04/01/53	+190
16	03/21/23	SWX	Southwest Gas Corp	Unsecured	300	5.450%	Baa1	BBB	03/23/28	+175
17	03/23/23	PEG	Public Service Electric and Gas Co	Secured	500	4.650%	A1	A	03/15/33	+122
18	03/23/23	PEG	Public Service Electric and Gas Co	Secured	400	5.125%	A1	A	03/15/53	+142
19	03/27/23	LNT	Wisconsin Power & Light	Unsecured	300	4.950%	A3	A	04/01/33	+145
20	03/27/23	TVA	Tennessee Valley Authority	Unsecured	1,000	3.875%	Aaa	AA+	03/15/28	+45
21	03/27/23	XEL	Public Service Co of Colorado	Secured	850	5.250%	A1	A	04/01/53	+155
22	03/28/23	AEP	Southwestern Electric Power Co	Unsecured	350	5.300%	Baa2	A-	04/01/33	+178
23	03/28/23	D	Virginia Electric Power Co	Unsecured	750	5.000%	A2	BBB+	04/01/33	+150
24	03/28/23	D	Virginia Electric Power Co	Unsecured	750	5.450%	A2	BBB+	04/01/53	+175
25	03/28/23	FE	Metropolitan Edison Co	Unsecured	425	5.200%	A3	BBB	04/01/28	+160
26	03/28/23	FE	Pennsylvania Electric Co	Unsecured	300	5.150%	Baa1	BBB	03/30/26	+140
27	03/28/23	PCG	Pacific Gas and Electric Co	Secured	750	6.700%	Baa3	BBB-	04/01/53	+295
28	04/03/23	EVRG	Evergy Metro Inc	Secured	300	4.950%	A2	A+	04/15/33	+153
29	04/04/23	WEC	WEC Energy Group Inc (reopening)	Unsecured	350	4.750%	Baa1	BBB+	01/09/26	+100
30	04/19/23	EIX	SCE Recovery Funding LLC	Secured	425	4.697%	Aaa	AAA	06/15/40	+110
31	04/19/23	EIX	SCE Recovery Funding LLC	Secured	350	5.112%	Aaa	AAA	12/15/47	+120
32	05/01/23	CNP	CenterPoint Energy Resources Corp (Reopening)	Unsecured	300	5.250%	A3	BBB+	03/01/28	+100
33	05/01/23	SO	Georgia Power Co	Unsecured	750	4.650%	Baa1	BBB+	05/16/28	+105
34	05/01/23	SO	Georgia Power Co	Unsecured	1,000	4.950%	Baa1	BBB+	05/17/33	+140
35	05/01/23	XEL	Northern States Power Company	Secured	800	5.100%	Aa3	A	05/15/53	+135
36	05/08/23	AEP	Ohio Power Co	Unsecured	400	5.000%	Baa1	A-	06/01/33	+155
37	05/08/23	DTE	DTE Energy Co	Unsecured	800	4.875%	Baa2	BBB	06/01/28	+140
38	05/08/23	ES	Eversource Energy	Unsecured	450	4.750%	Baa1	BBB+	05/15/26	+105
39	05/08/23	ES	Eversource Energy	Unsecured	550	5.450%	Baa1	BBB+	03/01/28	+130
40	05/08/23	ES	Eversource Energy	Unsecured	800	5.125%	Baa1	BBB+	05/15/33	+163
41	05/08/23	EXC	Baltimore Gas and Electric Co	Unsecured	700	5.400%	A3	A	06/01/53	+158
42	05/08/23	ONCRTL	Oncor Electric Delivery Co	Secured	600	4.300%	A2	A+	05/15/28	+85
43	05/08/23	ONCRTL	Oncor Electric Delivery Co (reopening)	Secured	400	4.950%	A2	A+	09/15/52	+145
44	05/09/23	ETR	Entergy Mississippi LLC	Secured	300	5.000%	A2	A	09/01/33	+148
45	05/10/23	EIX	Edison International	Unsecured	600	5.250%	Baa2	BBB-	11/15/28	+190
46	05/15/23	AES	The AES Corp	Unsecured	900	5.450%	Baa3	BBB-	06/01/28	+200
47	05/15/23	BRKHEC	PacifiCorp	Secured	1,200	5.500%	A1	A+	05/15/54	+165
48	05/15/23	NEE	Florida Power & Light Co	Unsecured	500	4.450%	A1	A	05/15/26	+80
49	05/15/23	NEE	Florida Power & Light Co	Secured	750	4.400%	Aa2	A+	05/15/28	+95
50	05/15/23	NEE	Florida Power & Light Co	Secured	500	4.625%	Aa2	A+	05/15/30	+115
51	05/15/23	NEE	Florida Power & Light Co	Secured	750	4.800%	Aa2	A+	05/15/33	+130
52	05/15/23	PSD	Puget Sound Energy Inc	Secured	400	5.448%	A2	A-	06/01/53	+160
53	05/15/23	SO	The Southern Co	Unsecured	750	4.850%	Baa2	BBB	06/15/28	+143
54	05/15/23	SO	The Southern Co	Unsecured	750	5.200%	Baa2	BBB	06/15/33	+173
55	05/17/23	EDF FP	Electricite de France SA	Unsecured	1,000	5.700%	Baa1	BBB	05/23/28	+215
56	05/17/23	EDF FP	Electricite de France SA	Unsecured	1,000	6.250%	Baa1	BBB	05/23/33	+270
57	05/17/23	EDF FP	Electricite de France SA	Unsecured	1,000	6.900%	Baa1	BBB	05/23/53	+310
58	05/17/23	EIX	Southern California Edison Co	Secured	400	4.900%	A2	A-	06/01/26	+113
59	05/17/23	EIX	Southern California Edison Co	Secured	700	5.875%	A2	A-	12/01/53	+200
60	05/17/23	ITC	ITC Holdings Corp	Unsecured	500	5.400%	Baa2	BBB+	06/01/33	+185
61	05/17/23	ITC	ITC Holdings Corp (reopening)	Unsecured	300	4.950%	Baa2	BBB+	09/22/27	+135
62	05/17/23	NRUC	National Rural Utilities Cooperative Finance Corp	Pref/Hybrid	300	7.125%	A3	BBB	09/15/53	+353
63	05/17/23	SRE	Southern California Gas Co	Secured	500	5.200%	Aa3	A+	06/01/33	+165
64	05/17/23	SRE	Southern California Gas Co	Secured	500	5.750%	Aa3	A+	06/01/53	+190
65	05/22/23	AEP	AEP Texas Inc	Unsecured	450	5.400%	Baa2	A-	06/01/33	+172
66	05/23/23	AEE	Ameren Illinois Company	Secured	500	4.950%	A1	A	06/01/33	+127
67	05/30/23	NI	NISource Inc.	Unsecured	450	5.400%	Baa2	BBB+	06/30/33	+175
68	05/30/23	NI	NISource Inc.(Reopening)	Unsecured	300	5.250%	Baa2	BBB+	03/30/28	+135
69	06/01/23	AEP	American Electric Power Co Inc	Jr. Sub Notes	850	5.699%	Baa3	BBB+	08/15/25	+155
70	06/01/23	PCG	Pacific Gas and Electric Co	Secured	850	6.100%	Baa3	BBB-	01/15/29	+240
71	06/01/23	PCG	Pacific Gas and Electric Co	Secured	1,150	6.400%	Baa3	BBB-	06/15/33	+280
72	06/01/23	PCG	Pacific Gas and Electric Co (Reopening)	Secured	500	6.750%	Baa3	BBB-	01/15/53	+315
73	06/05/23	DUK	Piedmont Natural Gas Co	Unsecured	350	5.400%	A3	BBB+	06/15/33	+170
74	06/08/23	VST	Palomino Funding Trust I	Secured	450	7.233%	Baa3	BBB-	05/17/28	+338
75	06/13/23	DUK	Duke Energy Carolinas LLC	Secured	500	5.400%	Aa3	A	01/15/54	+150
76	06/13/23	DUK	Duke Energy Carolinas LLC (Reopening)	Secured	350	4.950%	Aa3	A	01/15/33	+130
77	06/15/23	EXC	PECO Energy Co	Secured	575	4.900%	Aa3	A	06/15/33	+120
78	06/20/23	SRE	Sempra Energy	Unsecured	550	5.400%	Baa2	BBB	08/01/26	+123
79	06/20/23	SRE	Sempra Energy	Unsecured	700	5.500%	Baa2	BBB	08/01/33	+180
80	06/21/23	CNP	SIGECO Securitization I	Secured	215	5.026%	Aaa	AAA	11/15/38	+118
81	06/21/23	CNP	SIGECO Securitization I	Secured	126	5.172%	Aaa	AAA	05/15/43	+145
82	06/26/23	ES	The Connecticut Light & Power Co	Secured	300	4.900%	A1	A+	07/01/33	+120
83	06/26/23	NRUC	National Rural Utilities Cooperative Finance Corp	Unsecured	400	5.050%	A2	A-	09/15/28	+110
84	06/27/23	PNW	Arizona Public Service Co	Unsecured	500	5.550%	A3	BBB+	08/01/33	+180
85	07/17/23	NGGLN	Boston Gas Company	Unsecured	400	6.119%	Baa1	BBB+	07/20/53	+218
86	07/31/23	CMS	Consumers Energy Company	Unsecured	500	4.900%	A1	A	02/15/29	+75
87	07/31/23	XEL	Xcel Energy	Unsecured	800	5.450%	Baa1	BBB+	08/15/33	+153
88	08/03/23	AGR	New York State Electric & Gas	Unsecured	350	5.650%	Baa1	A-	08/15/28	+140
89	08/03/23	AGR	New York State Electric & Gas	Unsecured	400	5.850%	Baa1	A-	08/15/33	+168
90	08/03/23	PEG	Public Service Electric and Gas Co	Secured	500	5.200%	A1	A	08/01/33	+103
91	08/03/23	PEG	Public Service Electric and Gas Co	Secured	400	5.450%	A1	A	08/01/53	+115
92	08/07/23	NEE	NextEra Energy Capital Holdings	Unsecured	2,000	5.749%	Baa1	BBB+	09/01/25	+100
93	08/07/23	SRE	SDG&E	Secured	600	4.950%	A1	A	08/15/28	+90
94	08/08/23	CNP	CenterPoint Energy Inc	Unsecured	400	5.250%	Baa2	BBB	08/10/26	+90
95	08/08/23	D	Virginia Electric Power Co	Unsecured	400	5.300%	A2	BBB+	08/15/33	+128
96	08/08/23	D	Virginia Electric Power Co	Unsecured	600	5.700%	A2	BBB+	08/15/53	+150
97	08/08/23	ETR	Entergy Texas	Secured	350	5.800%	A3	A	09/01/53	+160
98	08/14/23	ETR	Entergy Arkansas	Secured	300	5.300%	A2	A	09/15/33	+120
99	08/15/23	NRG	Alexander Funding Trust	Secured	500	7.467%	Baa3	BBB-	07/31/28	+310
100	09/05/23	SO	The Southern Co	Unsecured	600	5.500%	Baa2	BBB	03/15/29	+113

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Recent Utility Corporate Bond Issuances

for the Projected Year Ending October 31, 2026

Case No.: U-21806

Exhibit No.: A-31 (MRB-9)

Page: 4 of 6

Witness: MRBleckman

Date: December 2024

Line No.	(a) Issue Date	(b) Ticker	(c) Issuer	(d) Type	(e) Amt (\$mm)	(f) Coupon	(g) Ratings		(i) Maturity	(j) Issue Spread (bp)
							Moody's	S&P		
1	09/05/23	SO	The Southern Co	Unsecured	700	5.700%	Baa2	BBB	03/15/34	+148
2	09/05/23	DUK	Duke Energy Corp	Unsecured	600	5.750%	Baa2	BBB	09/15/33	+150
3	09/05/23	DUK	Duke Energy Corp	Unsecured	750	6.100%	Baa2	BBB	09/15/53	+173
4	09/05/23	BRKHEC	MidAmerican Energy Co	Secured	350	5.350%	Aa2	A+	01/15/34	+110
5	09/05/23	BRKHEC	MidAmerican Energy Co	Secured	1,000	5.850%	Aa2	A+	09/15/54	+147
6	09/05/23	WEC	WEC Energy Group Inc	Unsecured	600	5.600%	Baa1	BBB+	09/12/26	+93
7	09/06/23	BKH	Black Hills Corporation	Unsecured	450	6.150%	Baa2	BBB+	05/14/34	+195
8	09/06/23	IDA	Idaho Power Co	Secured	350	5.800%	A2	A-	04/01/54	+150
9	09/11/23	SO	Southern Company Gas Capital Corp	Unsecured	500	5.750%	Baa1	BBB+	09/15/33	+148
10	09/11/23	BRKHEC	Nevada Power Co	Secured	500	6.000%	A2	A+	03/15/54	+163
11	09/12/23	VST	Vistra Operations Co LLC	Secured	650	6.950%	Baa3	BBB-	10/15/33	+270
12	09/12/23	FE	Monongahela Power Co	Secured	400	5.850%	A3	A-	02/15/34	+160
13	09/12/23	NGGLN	Brooklyn Union Gas Company	Unsecured	400	6.388%	Baa2	BBB+	09/15/33	+212
14	09/13/23	CNP	CenterPoint Energy Houston Electric LLC	Secured	500	5.200%	A2	A	10/01/28	+85
15	09/13/23	BRKHEC	Sierra Pacific Power Co	Secured	400	5.900%	A2	A+	03/15/54	+160
16	09/18/23	LNT	Interstate Power and Light Co	Unsecured	300	5.700%	Baa1	A-	10/15/33	+145
17	09/18/23	ES	Public Service Co of New Hampshire	Secured	300	5.350%	A1	A+	10/01/33	+105
18	09/18/23	ES	NSTAR Electric Co	Unsecured	150	5.600%	A1	A	10/01/28	+115
19	09/26/23	CEG	Constellation Energy Generation LLC	Unsecured	500	6.125%	Baa2	BBB	01/15/34	+158
20	09/26/23	CEG	Constellation Energy Generation LLC	Unsecured	900	6.500%	Baa2	BBB	10/01/53	+180
21	09/26/23	EIX	Southern California Edison Co	Secured	550	5.650%	A2	A-	10/01/28	+105
22	10/02/23	PEG	Public Service Enterprise Group	Unsecured	600	5.875%	Baa2	BBB	10/15/28	+120
23	10/02/23	PEG	Public Service Enterprise Group	Unsecured	400	6.125%	Baa2	BBB	10/15/33	+150
24	10/04/23	D	Dominion Energy South Carolina Inc	Secured	500	6.250%	A2	A	10/15/53	+140
25	10/05/23	ATO	Atmos Energy	Unsecured	400	5.900%	A1	A-	11/15/33	+120
26	10/05/23	ATO	Atmos Energy	Unsecured	500	6.200%	A1	A-	11/15/53	+133
27	10/30/23	NRUC	National Rural Utilities Cooperative Finance Corp	Unsecured	400	5.600%	A2	A-	11/13/26	+73
28	11/06/23	DUK	Duke Energy Florida LLC	Secured	600	5.875%	A1	A	11/15/33	+125
29	11/06/23	DUK	Duke Energy Florida LLC	Secured	700	6.200%	A1	A	11/15/53	+142
30	11/06/23	PCG	Pacific Gas and Electric Co	Secured	800	6.950%	Baa3	BBB-	03/15/34	+233
31	11/06/23	SO	Alabama Power Co	Unsecured	300	5.850%	A1	A-	11/15/33	+120
32	11/07/23	LNT	Alliant Energy Finance LLC	Unsecured	300	5.950%	Baa2	BBB+	03/30/29	+147
33	11/08/23	AEP	Kentucky Power Co	Unsecured	375	7.000%	Baa3	BBB	11/15/33	+250
34	11/08/23	ES	Eversource Energy	Unsecured	800	5.950%	Baa2	BBB+	02/01/29	+147
35	11/08/23	EVRG	Eversource Energy	Secured	300	5.900%	A2	A	11/15/33	+140
36	11/08/23	ONCRXT	Oncor Electric Delivery Co LLC	Secured	800	5.650%	A2	A+	11/15/33	+115
37	11/15/23	AEE	Ameren Corporation	Unsecured	600	5.700%	Baa1	BBB	12/01/26	+105
38	11/20/23	ED	Consolidated Edison Co of New York Inc	Unsecured	600	5.500%	A3	A-	03/15/34	+115
39	11/20/23	ED	Consolidated Edison Co of New York Inc	Unsecured	900	5.900%	A3	A-	11/15/53	+138
40	11/28/23	OGLETH	Oglethorpe Power Corp	Secured	400	6.200%	Baa1	BBB+	12/01/53	+175
41	12/04/23	EIX	Edison International	Pref/Hybrid	450	7.875%	Baa3	BB+	06/15/54	+366
42	12/06/23	AEP	American Electric Power Company	Unsecured	1,000	5.200%	Baa2	BBB+	01/15/29	+113
43	12/11/23	OGS	ONE Gas Inc	Unsecured	300	5.100%	A3	A-	4/1/2029	+87
44	12/11/23	VST	Vistra Operations Co LLC (Reopening)	Secured	400	6.950%	Baa3	BBB-	10/15/33	+240
45	12/18/23	AEE	Ameren Corporation	Unsecured	700	5.000%	Baa2	BBB	01/15/29	+110
46	01/02/24	DUK	Duke Energy Corp	Unsecured	550	4.850%	Baa2	BBB	1/5/2027	+75
47	01/02/24	DUK	Duke Energy Corp	Unsecured	550	4.850%	Baa2	BBB	1/5/2029	+95
48	01/02/24	D	Virginia Electric and Power Co	Unsecured	500	5.000%	A2	BBB+	01/15/34	+115
49	01/02/24	D	Virginia Electric and Power Co	Unsecured	500	5.350%	A2	BBB+	01/15/54	+127
50	01/02/24	PPL	PPL Electric Utilities Corp	Secured	650	4.850%	A1	A+	02/15/34	+92
51	01/02/24	CMS	Consumers Energy Co	Secured	600	4.600%	A1	A	05/30/29	+73
52	01/03/24	BRKHEC	PacifiCorp	Secured	500	5.100%	A2	A	02/15/29	+120
53	01/03/24	BRKHEC	PacifiCorp	Secured	700	5.300%	A2	A	02/15/31	+140
54	01/03/24	BRKHEC	PacifiCorp	Secured	1,100	5.450%	A2	A	02/15/34	+155
55	01/03/24	BRKHEC	PacifiCorp	Secured	1,500	5.800%	A2	A	01/15/55	+175
56	01/03/24	DUK	Duke Energy Carolinas LLC	Secured	575	4.850%	Aa3	A	01/15/34	+100
57	01/03/24	DUK	Duke Energy Carolinas LLC (Reopening)	Secured	425	5.400%	Aa3	A	01/15/54	+118
58	01/03/24	AEE	Union Electric Co	Secured	350	5.250%	A2	A	01/15/54	+123
59	01/04/24	WTRG	Essential Utilities Inc	Unsecured	500	5.375%	Baa2	A-	01/15/34	+140
60	01/08/24	EIX	Southern California Edison Co	Secured	500	4.875%	A2	A-	02/01/27	+75
61	01/08/24	EIX	Southern California Edison Co	Secured	900	5.200%	A2	A-	06/01/34	+120
62	01/08/24	NGGLN	National Grid PLC	Unsecured	750	5.418%	Baa2	BBB	01/11/34	+142
63	01/09/24	AQNCN	Liberty Utilities Co	Unsecured	500	5.577%	Baa2	BBB	01/31/29	+160
64	01/09/24	AQNCN	Liberty Utilities Co	Unsecured	350	5.869%	Baa2	BBB	01/31/34	+185
65	01/11/24	NGGLN	Niagara Mohawk Power	Unsecured	500	5.290%	Baa1	BBB+	01/17/34	+130
66	01/11/24	NGGLN	Niagara Mohawk Power	Unsecured	700	5.664%	Baa1	BBB+	01/17/54	+145
67	01/16/24	ES	Eversource Energy	Unsecured	350	5.000%	Baa2	BBB+	1/1/2027	+100
68	01/16/24	ES	Eversource Energy	Unsecured	650	5.500%	Baa2	BBB+	1/1/2034	+150
69	01/16/24	ES	Connecticut Light and Power Co	Secured	350	4.650%	A1	A+	1/1/2029	+75
70	01/22/24	BRKHEC	MidAmerican Energy	Secured	600	5.300%	Aa2	A	02/01/55	+98
71	01/25/24	TE	Tampa Electric	Unsecured	500	4.900%	A3	BBB+	03/01/29	+88
72	01/29/24	NEE	NextEra Energy Capital Holdings Inc	Unsecured	600	FRN	Baa1	BBB+	01/29/26	+76
73	01/29/24	NEE	NextEra Energy Capital Holdings Inc	Unsecured	1,000	4.950%	Baa1	BBB+	01/29/26	+65
74	01/29/24	NEE	NextEra Energy Capital Holdings Inc	Unsecured	900	4.900%	Baa1	BBB+	03/15/29	+95
75	01/29/24	NEE	NextEra Energy Capital Holdings Inc	Unsecured	1,100	5.250%	Baa1	BBB+	03/15/34	+120
76	01/29/24	NEE	NextEra Energy Capital Holdings Inc	Unsecured	800	5.550%	Baa1	BBB+	03/15/54	+125
77	01/29/24	BRKHEC	Northern Natural Gas Co	Unsecured	500	5.625%	A2	A-	02/01/54	+127
78	02/06/24	SR	Spire Inc	Unsecured	350	5.300%	Baa2	BBB+	03/01/26	+85
79	02/12/24	DTE	DTE Energy Co	Unsecured	1,200	5.100%	Baa2	BBB	03/01/29	+103
80	02/20/24	AWK	American Water Capital Corp	Unsecured	700	5.150%	Baa1	A	03/01/34	+92
81	02/20/24	AWK	American Water Capital Corp	Unsecured	700	5.450%	Baa1	A	03/01/54	+107
82	02/20/24	SO	Georgia Power Co	Unsecured	500	5.004%	Baa1	BBB+	02/23/27	+62
83	02/20/24	SO	Georgia Power Co	Unsecured	900	5.250%	Baa1	BBB+	03/15/34	+102
84	02/20/24	DTE	DTE Electric Co	Secured	500	4.850%	Aa3	A	12/01/26	+47
85	02/20/24	DTE	DTE Electric Co	Secured	500	5.200%	Aa3	A	03/01/34	+93
86	02/21/24	NGGLN	Massachusetts Electric Co	Unsecured	400	5.867%	Baa1	BBB+	02/26/54	+138
87	02/22/24	EXC	Exelon Corp	Unsecured	650	5.150%	Baa2	BBB	03/15/29	+88
88	02/22/24	EXC	Exelon Corp	Unsecured	650	5.450%	Baa2	BBB	03/15/34	+115
89	02/22/24	EXC	Exelon Corp (Reopening)	Unsecured	400	5.600%	Baa2	BBB	03/15/53	+130
90	02/22/24	XEL	Northern States Power Co/MN	Secured	700	5.400%	Aa3	A+	03/15/54	+97
91	02/26/24	PCG	Pacific Gas and Electric Co	Secured	850	5.550%	Baa2	BBB	05/15/29	+125
92	02/26/24	PCG	Pacific Gas and Electric Co	Secured	1,100	5.800%	Baa2	BBB	05/15/34	+153
93	02/26/24	PCG	Pacific Gas and Electric Co (Reopening)	Secured	300	6.750%	Baa2	BBB	01/15/53	+170
94	02/26/24	SO	The Southern Co (Reopening)	Unsecured	400	5.500%	Baa2	BBB	03/15/29	+85
95	02/26/24	SO	The Southern Co (Reopening)	Unsecured	400	5.700%	Baa2	BBB	03/15/34	+117
96	02/26/24	XEL	Xcel Energy Inc	Unsecured	800	5.500%	Baa1	BBB+	03/15/34	+125
97	02/26/24	EXC	Potomac Electric Power Co	Secured	375	5.200%	A2	A	03/15/34	+95
98	02/26/24	EXC	Potomac Electric Power Co	Secured	300	5.500%	A2	A	03/15/54	+110
99	02/26/24	CNP	CenterPoint Energy Houston Electric LLC	Secured	400	5.150%	A2	A	03/01/34	+90
100	02/26/24	DUK	Duke Energy Indiana LLC	Secured	300	5.250%	Aa3	A	03/01/34	+100

Line No.	(a) Issue Date	(b) Ticker	(c) Issuer	(d) Type	(e) Amt (\$mm)	(f) Coupon	(g) Moody's	(h) S&P	(i) Maturity	(j) Issue Spread (bp)
							Ratings			
1	02/27/24	EIX	Southern California Edison Co	Secured	600	5.350%	A2	A-	03/01/26	+62
2	02/27/24	EIX	Southern California Edison Co	Secured	600	5.150%	A2	A-	06/01/29	+83
3	02/27/24	EIX	Southern California Edison Co	Secured	400	5.750%	A2	A-	04/15/54	+135
4	02/27/24	NEE	NextEra Energy Capital Holdings Inc	Pref/Hybrid	1,000	6.700%	Baa2	BBB	09/01/54	+242
5	02/28/24	PEG	Public Service Electric and Gas Co	Secured	450	5.200%	A1	A	03/01/34	+93
6	02/28/24	PEG	Public Service Electric and Gas Co	Secured	550	5.450%	A1	A	03/01/54	+108
7	03/04/24	NEE	NextEra Energy Capital Holdings Inc	Unsecured	1,000	4.850%	Baa1	BBB+	04/30/31	+142
8	03/04/24	ETR	Entergy Louisiana LLC	Secured	500	5.350%	A2	A	03/15/34	+115
9	03/04/24	ETR	Entergy Louisiana LLC	Secured	700	5.700%	A2	A	03/15/54	+135
10	03/04/24	LNT	Wisconsin Power and Light Co	Unsecured	300	5.375%	Baa1	A	03/30/34	+118
11	03/06/24	AES	AES Andes SA	Unsecured	500	6.300%	Baa3	BBB-	03/15/29	+220
12	03/07/24	AES	Indianapolis Power & Light Co	Secured	650	5.700%	A2	A-	04/01/54	+147
13	03/08/24	AES	IPALCO Enterprises Inc	Secured	400	5.750%	Baa3	BBB-	04/01/34	+170
14	03/11/24	NI	NiSource Inc	Unsecured	650	5.350%	Baa2	BBB+	04/01/34	+128
15	03/11/24	SRE	Sempra Energy	Pref/Hybrid	600	6.875%	Baa3	BBB-	10/01/54	+279
16	03/11/24	DUK	Duke Energy Progress LLC	Secured	500	5.100%	Aa3	A	03/15/34	+103
17	03/11/24	AEP	AEP Transmission Co LLC	Unsecured	450	5.150%	A2	BBB+	04/01/34	+105
18	03/11/24	DUK	Duke Energy Ohio Inc	Secured	425	5.550%	A2	A	03/15/54	+130
19	03/12/24	CEG	Constellation Energy Generation LLC	Unsecured	900	5.750%	Baa2	BBB+	03/15/54	+145
20	03/12/24	SRE	Southern California Gas Co	Secured	500	5.600%	Aa3	A+	04/01/54	+133
21	03/18/24	SRE	San Diego Gas & Electric Co	Secured	600	5.550%	A1	A	04/15/54	+115
22	03/18/24	AEP	Appalachian Power Co	Unsecured	400	6.650%	Baa1	BBB+	04/01/34	+135
23	03/19/24	ES	Public Service Co of New Hampshire (Reopening)	Secured	300	3.500%	A1	A+	10/01/33	+95
24	03/21/24	PPL	The Narragansett Electric Co	Unsecured	500	5.350%	A3	A-	05/01/34	+108
25	03/25/24	PEG	Public Service Enterprise Group Inc	Unsecured	750	5.200%	Baa2	BBB	04/01/29	+100
26	03/25/24	PEG	Public Service Enterprise Group Inc	Unsecured	500	5.450%	Baa2	BBB	04/01/34	+122
27	03/25/24	AEE	Union Electric Company d/b/a Ameren Missouri	Secured	500	5.200%	A2	A	04/01/34	+98
28	04/01/24	XEL	Public Service Co of Colorado	Secured	450	5.350%	A1	A	05/15/34	+105
29	04/01/24	XEL	Public Service Co of Colorado	Secured	750	5.750%	A1	A	05/15/54	+130
30	04/01/24	EVRG	Evergy Metro Inc	Secured	300	5.400%	A2	A	04/01/34	+110
31	04/03/24	ENGIFP	Engie SA	Unsecured	750	5.250%	Baa1	BBB+	04/10/29	+100
32	04/03/24	ENGIFP	Engie SA	Unsecured	750	5.625%	Baa1	BBB+	04/10/34	+128
33	04/03/24	ENGIFP	Engie SA	Unsecured	500	5.875%	Baa1	BBB+	04/10/54	+148
34	04/09/24	DUK	Duke Energy Corporation	Unsecured	750	3.750%	Baa2	BBB	04/01/31	MS+120
35	04/09/24	VST	Vistra Operations Co LLC	Secured	500	6.000%	Baa3	BBB-	04/15/34	+165
36	04/11/24	RWE	RWE Finance US LLC	Unsecured	1,000	5.875%	Baa2	NR	04/16/34	+135
37	04/11/24	RWE	RWE Finance US LLC	Unsecured	1,000	6.250%	Baa2	NR	04/16/54	+160
38	04/15/24	EDF	Electricite de France SA	Unsecured	650	5.650%	Baa1	BBB	04/22/29	+105
39	04/15/24	EDF	Electricite de France SA	Unsecured	650	5.950%	Baa1	BBB	04/22/34	+135
40	04/15/24	EDF	Electricite de France SA	Unsecured	750	6.000%	Baa1	BBB	04/22/64	+185
41	04/15/24	ES	Eversource Energy	Unsecured	700	5.850%	Baa2	BBB+	04/15/31	+120
42	04/15/24	ES	Eversource Energy	Unsecured	700	5.950%	Baa2	BBB+	07/15/34	+135
43	04/29/24	DTE	DTE Energy Co	Unsecured	850	5.850%	Baa2	BBB	06/01/34	+125
44	05/02/24	AEP	Ohio Power Co	Unsecured	350	5.650%	Baa1	BBB+	06/01/34	+110
45	05/06/24	D	Dominion Energy Inc	Pref/Hybrid	1,000	6.875%	Baa3	BBB-	02/01/55	+239
46	05/06/24	D	Dominion Energy Inc	Pref/Hybrid	1,000	7.000%	Baa3	BBB-	06/01/54	+251
47	05/06/24	ED	Consolidated Edison Co of New York Inc	Unsecured	400	5.375%	A3	A-	05/15/34	+90
48	05/06/24	ED	Consolidated Edison Co of New York Inc	Unsecured	1,000	5.700%	A3	A-	05/15/54	+110
49	05/06/24	EXC	Commonwealth Edison Co	Secured	400	5.300%	A1	A	06/01/34	+85
50	05/06/24	EXC	Commonwealth Edison Co	Secured	400	5.650%	A1	A	06/01/54	+105
51	05/06/24	EIX	Southern California Edison Co	Secured	750	5.450%	A2	A-	06/01/31	+97
52	05/06/24	PNW	Arizona Public Service Co	Unsecured	450	5.700%	Baa1	BBB+	08/15/34	+125
53	05/06/24	ITC	ITC Holdings Corp	Unsecured	400	5.650%	Baa2	BBB+	05/09/34	+118
54	05/06/24	OGE	OGE Energy Corp	Unsecured	350	5.450%	Baa1	BBB	05/15/29	+100
55	05/07/24	EIX	SCE Trust VIII (\$25 par)	Pref/Hybrid	350	6.950%	Baa3	BB+	05/13/29	+248
56	05/07/24	ETR	Entergy Arkansas LLC	Secured	400	5.450%	A2	A	06/01/34	+100
57	05/07/24	ETR	Entergy Arkansas LLC	Secured	400	5.750%	A2	A	06/01/54	+118
58	05/07/24	NRUC	National Rural Utilities Cooperative Finance Corp	Unsecured	450	5.100%	A2	A-	05/06/27	+48
59	05/07/24	NRUC	National Rural Utilities Cooperative Finance Corp	Unsecured	350	5.150%	A2	A-	06/15/29	+73
60	05/07/24	VEC	Wisconsin Electric Power Co	Unsecured	350	5.000%	A2	A-	05/15/29	+60
61	05/08/24	CNP	CenterPoint Energy Inc	Unsecured	700	5.400%	Baa2	BBB	06/01/29	+95
62	05/13/24	NI	NiSource	Pref/Hybrid	500	6.950%	Baa3	BBB-	11/30/54	+245
63	05/13/24	BKH	Black Hills Corporation	Unsecured	450	6.000%	Baa2	BBB+	01/15/35	+155
64	05/13/24	XEL	Northern States Power - WI	Secured	400	5.650%	Aa3	A	06/15/54	+105
65	05/13/24	ETR	Entergy Mississippi	Secured	300	5.850%	A2	A	06/01/54	+123
66	05/15/24	ONCRTX	Oncor Electric Delivery Company	Secured	500	3.500%	A2	A+	05/15/31	MS+80
67	05/16/24	AES	The AES Corp	Pref/Hybrid	950	7.600%	Ba1	BB	01/15/55	+320
68	05/20/24	ETR	Entergy Corp	Pref/Hybrid	1,200	7.125%	Baa3	BBB-	12/01/54	+267
69	05/20/24	AEP	AEP Texas Inc	Unsecured	500	5.450%	Baa2	BBB+	05/15/29	+100
70	05/20/24	AEP	AEP Texas Inc	Unsecured	350	5.700%	Baa2	BBB+	05/15/34	+130
71	05/20/24	ES	NSTAR Electric Co	Unsecured	600	5.400%	A2	A	06/01/34	+98
72	05/21/24	EVRG	Evergy Missouri West Inc	Secured	300	5.650%	A3	A	06/01/34	+125
73	05/28/24	NEE	Florida Power & Light Co	Secured	750	5.150%	Aa2	A+	06/15/29	+60
74	05/28/24	NEE	Florida Power & Light Co	Secured	750	5.300%	Aa2	A+	06/15/34	+80
75	05/28/24	NEE	Florida Power & Light Co	Secured	850	5.600%	Aa2	A+	06/15/54	+95
76	05/28/24	SRE	Sempra Energy (Reopening)	Pref/Hybrid	500	6.875%	Baa3	BBB-	10/01/54	+279
77	06/03/24	EXC	Baltimore Gas and Electric Co	Unsecured	400	5.300%	A3	A	06/01/34	+93
78	06/03/24	EXC	Baltimore Gas and Electric Co	Unsecured	400	5.650%	A3	A	06/01/54	+110
79	06/03/24	XEL	Southwestern Public Service Co	Secured	600	6.000%	A3	A-	06/01/54	+150
80	06/03/24	LNT	Alliant Energy Finance LLC	Unsecured	375	5.400%	Baa2	BBB+	06/06/27	+80
81	06/04/24	PSD	Puget Sound Energy Inc	Unsecured	400	5.330%	A2	A-	06/15/34	+100
82	06/04/24	PSD	Puget Sound Energy Inc	Unsecured	400	5.685%	A2	A-	06/15/54	+120
83	06/05/24	NEE	NextEra Energy Capital Holdings Inc	Pref/Hybrid	1,200	6.750%	Baa2	BBB	06/15/54	+246
84	06/05/24	DUK	Duke Energy Corp	Unsecured	750	5.450%	Baa2	BBB	06/15/34	+118
85	06/05/24	DUK	Duke Energy Corp	Unsecured	750	5.800%	Baa2	BBB	06/15/54	+140
86	06/05/24	AES	AES Andes SA	Pref/Hybrid	530	8.150%	Ba1	BB	06/10/55	+384
87	06/10/24	EMACN	EUSHI Finance Inc	Pref/Hybrid	500	7.625%	Ba1	BB+	12/15/54	+314
88	06/05/24	PNW	Pinnacle West Capital Corp	Unsecured	350	FRN	Baa2	BBB	06/10/26	+82
89	06/17/24	AEP	American Electric Power Co.	Pref/Hybrid	400	7.050%	Baa3	BBB-	12/15/54	+275
90	06/17/24	AEP	American Electric Power Co.	Pref/Hybrid	600	6.950%	Baa3	BBB-	12/15/54	+268
91	06/17/24	ONCRTX	Oncor Electric Delivery	Secured	750	5.550%	A2	A+	06/15/54	+115
92	06/17/24	AEE	Ameren Illinois Company	Secured	625	5.550%	A1	A	07/01/54	+115
93	06/17/24	NI	NiSource Inc	Unsecured	600	5.200%	Baa2	BBB+	07/01/29	+95
94	06/17/24	CNP	CenterPoint Energy Resources Corp	Unsecured	400	5.400%	A3	BBB+	07/01/34	+115
95	06/24/24	HASI	Hannon Armstrong Sustainable Infrastructure Capital I	Unsecured	700	6.375%	Baa3	BB+	07/01/34	+225
96	06/25/24	EIX	Edison International	Unsecured	500	5.450%	Baa2	BBB-	06/15/29	+120
97	07/15/24	NGGLN	The Brooklyn Union Gas Co (Reopening)	Unsecured	150	6.388%	Baa2	BBB+	09/15/33	+167
98	07/15/24	NGGLN	The Brooklyn Union Gas Co	Unsecured	450	6.415%	Baa2	BBB+	07/18/54	+195
99	07/29/24	CMS	Consumers Energy Co	Secured	700	4.700%	A1	A	01/15/30	+68
100	07/29/24	DTE	DTE Energy Co	Unsecured	1,200	4.950%	Baa2	BBB	7/1/2027	+80

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company

Recent Utility Corporate Bond Issuances
for the Projected Year Ending October 31, 2026

Case No.: U-21806

Exhibit No.: A-31 (MRB-9)

Page: 6 of 6

Witness: MRBleckman

Date: December 2024

Line	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
No.	Issue	Ticker	Issuer	Type	Amt (\$mm)	Coupon	Ratings		Maturity	Issue Spread (bp)
	Date						Moody's	S&P		
1	08/01/24	PEG	Public Service Electric & Gas	Secured	600	4.850%	A1	A	8/1/2034	+90
2	08/01/24	PEG	Public Service Electric & Gas	Secured	500	5.300%	A1	A	8/1/2054	+105
3	08/01/24	AGR	New York State Electric & Gas Corp	Unsecured	525	5.300%	Baa1	A-	8/15/2034	+135
4	08/06/24	ETR	Entergy Louisiana LLC	Secured	700	5.150%	A2	A	09/15/34	+130
5	08/06/24	PPL	PPL Capital Funding Inc	Unsecured	750	5.250%	Baa1	BBB+	09/01/34	+143
6	08/06/24	SR	Spire Missouri Inc	Secured	320	5.150%	A1	A	08/15/34	+130
7	08/06/24	ES	The Connecticut Light and Power Co	Secured	300	4.950%	A1	A+	08/15/34	+110
8	08/06/24	D	Virginia Electric and Power Co	Unsecured	600	5.050%	A2	BBB+	08/15/34	+120
9	08/06/24	D	Virginia Electric and Power Co	Unsecured	600	5.550%	A2	BBB+	08/15/54	+140
10	08/07/24	IDA	Idaho Power Co	Secured	300	5.200%	A2	A-	08/15/34	+125
11	08/07/24	FTSCN	Tucson Electric Power Co	Unsecured	400	5.200%	A3	A-	09/15/34	+128
12	08/08/24	WTRG	Essential Utilities Inc	Unsecured	500	4.800%	Baa2	BBB+	08/15/27	+90
13	08/08/24	NRUC	National Rural Utilities Cooperative Finance Corp	Secured	350	5.000%	A1	A-	08/15/34	+110
14	08/08/24	OGS	One Gas Inc (Reopening)	Unsecured	250	5.100%	Aaa	AA+	04/01/29	+85
15	08/08/24	SRE	Southern California Gas Co	Secured	600	5.050%	Aa3	A+	09/01/34	+110
16	08/08/24	TVA	Tennessee Valley Authority	Unsecured	1,000	4.375%	Aaa	AA+	08/01/34	+48
17	08/12/24	DUK	Piedmont Natural Gas Co Inc	Secured	375	5.100%	A3	BBB+	02/15/35	+120
18	08/12/24	CNP	CenterPoint Energy	Pref/Hybrid	400	7.000%	Baa3	BBB-	02/15/55	+325
19	08/12/24	CNP	CenterPoint Energy	Pref/Hybrid	400	6.850%	Baa3	BBB-	02/15/55	+295
20	08/12/24	ETR	Entergy Texas Inc	Secured	350	5.550%	A3	A	09/15/54	+140
21	08/12/24	OGE	Oklahoma Gas and Electric Co (Reopening)	Secured	350	5.600%	A3	A-	04/01/53	+130
22	08/19/24	DUK	Duke Energy Corp	Pref/Hybrid	1,000	6.450%	Baa3	BBB-	09/01/54	+259
23	09/03/24	FE	FirstEnergy Transmission LLC	Unsecured	400	4.550%	Baa2	BBB+	01/15/30	+92
24	09/03/24	FE	FirstEnergy Transmission LLC	Unsecured	400	5.000%	Baa2	BBB+	01/15/35	+117
25	09/03/24	NI	NiSource Inc.	Pref/Hybrid	500	6.375%	Baa3	BBB-	03/31/55	+253
26	09/03/24	PCG	Pacific Gas and Electric Co	Secured	750	5.900%	Baa2	BBB	10/01/54	+180
27	09/03/24	PCG	Pacific Gas and Electric Co	Secured	1,000	FRN	Baa2	BBB	09/04/25	+95
28	09/03/24	EXC	PECO Energy Co	Secured	575	5.250%	Aa3	A	09/15/54	+112
29	09/03/24	EIX	Southern California Edison Co	Secured	500	4.400%	A2	A-	09/06/26	+55
30	09/03/24	SO	Southern Company Gas Capital Corp	Unsecured	450	4.950%	Baa1	A-	09/15/34	+115
31	09/04/24	LNT	Inerstate Power and Light	Unsecured	350	4.950%	Baa1	A-	09/30/34	+120
32	09/04/24	LNT	Inerstate Power and Light	Unsecured	300	5.450%	Baa1	A-	09/30/54	+140
33	09/04/24	SRE	Sempra	Pref/Hybrid	1,250	6.400%	Baa3	BBB-	10/01/54	+263
34	09/04/24	SO	The Southern Co	Unsecured	750	4.850%	Baa2	BBB+	03/15/35	+110
35	09/09/24	NRUC	National Rural Utilities	Unsecured	300	FRN	A2	A-	09/16/27	+100
36	09/09/24	NRUC	National Rural Utilities	Unsecured	550	4.120%	A2	A-	09/16/27	+58
37	09/09/24	NRUC	National Rural Utilities	Unsecured	500	5.150%	A2	A-	06/15/29	+73
38	09/09/24	PCG	PG&E Corporation	Pref/Hybrid	1,000	7.375%	Ba3	B	03/15/55	+388
39	09/09/24	WEC	Wisconsin Electric Power Co	Unsecured	300	4.600%	A2	A-	10/01/34	+90
40	09/09/24	WEC	Wisconsin Electric Power Co	Unsecured	300	5.050%	A2	A-	10/01/54	+108
41	09/16/24	ALACN	AltaGas Ltd	Pref/Hybrid	900	7.200%	NR	BB	10/15/54	+357
42	09/17/24	ATO	Atmos Energy Corp	Unsecured	650	5.000%	A1	A-	12/15/54	+108
43	09/26/24	NIAENE	Niagara Energy SAC	Unsecured	1,200	5.746%	Baa3	BBB-	10/03/34	+195
44	09/30/24	AEE	Union Electric Company d/b/a Ameren Missouri	Secured	450	5.125%	A2	A	03/15/55	+102
45	10/07/24	BRKHEC	Eastern Energy Gas Holdings	Unsecured	900	5.650%	Baa1	A-	10/15/54	+135

(a) Line No.	(b) State	(c) Proxy Group Company	(d) Regulated Subsidiary	(e) Docket #	(f) Case Type	(g) Date Authorized	(h) Common Equity %
1	Tennessee	Atmos Energy Corporation	Atmos Energy Corporation	D-24-00006	Natural Gas	07/29/24	62.38%
2	Kentucky	Atmos Energy Corporation	Atmos Energy Corporation	C-2021-00214	Natural Gas	05/19/22	54.50%
3	Kansas	Atmos Energy Corporation	Atmos Energy Corporation	D-19-ATMG-525-RTS	Natural Gas	02/24/20	56.32%
4	Texas	Atmos Energy Corporation	Atmos Energy Corporation	D-GUD-10900	Natural Gas	04/21/20	60.12%
5	Colorado	Atmos Energy Corporation	Atmos Energy Corporation	D-22AL-0348G	Natural Gas	05/04/23	56.50%
6	Colorado	Black Hills Corporation	Black Hills Colorado Gas, Inc.	D-23AL-0231G	Natural Gas	03/24/24	50.98%
7	Iowa	Black Hills Corporation	Black Hills Iowa Gas Utility Company, LLC	D-RPU-2021-0002	Natural Gas	12/28/21	50.01%
8	Nebraska	Black Hills Corporation	Black Hills Nebraska Gas, LLC	D-NG-109	Natural Gas	01/26/21	50.00%
9	Arkansas	Black Hills Corporation	Black Hills Energy Arkansas, Inc.	D-21-097-U	Natural Gas	10/10/22	45.00%
10	Wyoming	Black Hills Corporation	Cheyenne Light, Fuel and Power Company	D-20003-214-ER-22	Electric	12/13/22	52.00%
11	Arkansas	CenterPoint Energy, Inc.	CenterPoint Energy Resources Corp.	D-17-010-FR	Natural Gas	09/23/21	52.55%
12	Indiana	CenterPoint Energy, Inc.	Indiana Gas Company, Inc.	Ca-45468	Natural Gas	11/17/21	55.62%
13	Indiana	CenterPoint Energy, Inc.	Southern Indiana Gas and Electric Company	Ca-45447	Natural Gas	10/06/21	55.49%
14	Minnesota	CenterPoint Energy, Inc.	CenterPoint Energy Resources Corp.	D-G-008/GR-21-435	Natural Gas	08/18/22	51.00%
15	Texas	CenterPoint Energy, Inc.	CenterPoint Energy Resources Corp.	D-OSS-23-00015513	Natural Gas	06/26/24	60.61%
16	Texas	CenterPoint Energy, Inc.	CenterPoint Energy Houston Electric, LLC	D-49421	Electric	03/09/20	42.50%
17	Kentucky	NiSource Inc.	Columbia Gas of Kentucky	C-2021-00183	Natural Gas	12/28/21	52.64%
18	Maryland	NiSource Inc.	Columbia Gas of Maryland	C-9680	Natural Gas	11/17/22	52.97%
19	Ohio	NiSource Inc.	Columbia Gas of Ohio	C-21-0637-GA-AIR	Natural Gas	01/26/23	50.60%
20	Pennsylvania	NiSource Inc.	Columbia Gas of Pennsylvania	D-R-2020-3018835	Natural Gas	02/19/21	54.19%
21	Indiana	NiSource Inc.	Northern Indiana Public Service Company	Ca-45967	Natural Gas	07/31/24	58.51%
22	Oregon	Northwest Natural Gas Company	Northwest Natural Gas Company	D-UG-435	Natural Gas	10/24/22	50.00%
23	Oklahoma	ONE Gas, Inc.	Oklahoma Natural Gas Company	Ca-PUD202100063	Natural Gas	11/30/21	58.55%
24	Texas	ONE Gas, Inc.	Texas Gas Service Company, Inc.	D-OSS-23-00014399	Natural Gas	01/31/24	59.07%
25	Missouri	Spire Inc.	Spire Missouri Inc.	C-GR-2021-0108	Natural Gas	10/27/21	54.28%
26	Illinois	WEC Energy Group, Inc.	North Shore Gas Company	D-23-0068	Natural Gas	11/16/23	55.58%
27	Illinois	WEC Energy Group, Inc.	The Peoples Gas Light and Coke Company	D-23-0069	Natural Gas	11/16/23	52.33%
28	Wisconsin	WEC Energy Group, Inc.	Wisconsin Electric Power Company	D-5-UR-110	Electric	12/29/22	59.01%
29	Wisconsin	WEC Energy Group, Inc.	Wisconsin Gas LLC	D-5-UR-110	Natural Gas	12/29/22	54.52%
30	Wisconsin	WEC Energy Group, Inc.	Wisconsin Public Service Corporation	D-6690-UR-127	Natural Gas	12/22/22	53.79%
Average Equity Ratio							54.05%

Source: Individual state commission electronic docket records search.

Selection Criteria:

1. Regulated subsidiary of the Company's ROE proxy group in Case No. U-21490
2. Rate order issued from January 1, 2020 through September 30, 2024.
3. Rate order available through online docket search that includes an authorized equity ratio
4. For each regulated subsidiary, latest authorized equity ratio for each state / jurisdiction.

Note: Excludes final orders received by in-state proxy DTE Energy as well as the Company.

	(a)	(b)	(c)	(d)	(e)	(f) (d) x (e)
Line No.	Tier	State	Company	Equity Ratio	ROE	Rate of Return
1	Tier 1A	Alabama	Alabama Power	55.00%	10.87%	5.98%
2	Tier 1B	Florida	FPL	60.00%	10.80%	6.48%
3		Georgia	Georgia Power	56.00%	10.50%	5.88%
4		Pennsylvania	UGI (PA)	54.02%	9.85%	5.32%
5	Tier 1C	Wisconsin	WEC	52.40%	10.16%	5.32%
6		North Carolina	Duke Energy	53.00%	9.95%	5.27%
7		Iowa	IPL (IA)	51.00%	9.65%	4.92%
8	Average	Michigan ¹	Consumers Energy	50.01%	9.90%	4.95%

Source: Columns (a)-(c): August 2024 S&P Global Market Intelligence Report - RRA Regulatory Focus - State Regulatory Evaluations - Energy.
Columns (d) & (e): Company materials, S&P Capital IQ, investor presentations, and credit rating reports.
Column (f): Column (d) times column (e).

¹In August 2024, Michigan's state regulatory ranking was downgraded from Above Average Tier 1C to Average.

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Industry Update — December 8, 2023

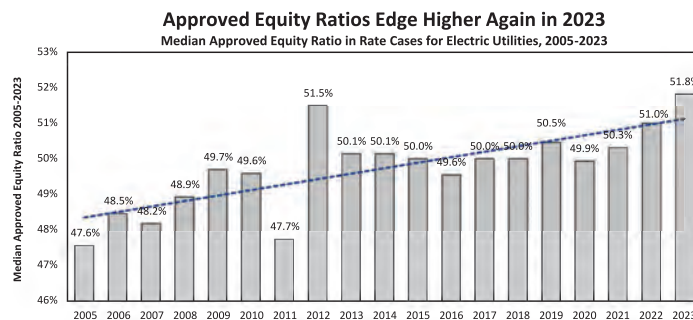
Utilities

Figure of the Week: Approved Equity Ratios, 2005-2023

Our Call

Figure of the Week

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Industry Update

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Figure of the Week: Approved Equity Ratios, 2005-2023

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Line	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)	(v)	(w)
				2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
1	S&P Senior Secured Debt Credit Rating			BBB-	BBB	BBB	BBB	BBB+	BBB+	BBB+	A-	A	A	A	A	A	A	A	A	A	A	A	
2	Debt Issued - First Mortgage Bonds (\$ millions)	A		\$	-	\$ 600	\$ 500	\$ 600	\$ -	\$ 725	\$ 750	\$ 500	\$ 250	\$ 450	\$ 535	\$ 1,900	\$1,001	\$ 1,661	\$ 335	\$ 800	\$ 2,025	\$ 1,300	\$13,931
3	Interest Spread Differential vs. BBB-	B		1.31%	1.31%	1.31%	1.31%	0.93%	0.99%	1.24%	0.82%	0.82%	0.53%	0.72%	0.61%	1.71%	0.85%	0.74%	0.56%	0.89%	1.32%	1.33%	
4	Annual Interest Savings (\$ millions)	A x B		\$	-	\$ 8	\$ 7	\$ 6	\$ -	\$ 9	\$ 6	\$ 4	\$ 1	\$ 3	\$ 3	\$ 32	\$ 8	\$ 12	\$ 2	\$ 7	\$ 27	\$ 17	
5	Cumulative Annual Interest Savings (\$ millions)			\$	-	\$ 8	\$ 14	\$ 20	\$ 20	\$ 29	\$ 35	\$ 39	\$ 41	\$ 44	\$ 47	\$ 80	\$ 88	\$ 100	\$ 102	\$ 109	\$ 136	\$ 153	\$ 153

Annual savings repeats throughout entire life of the debt.

6	BBB- Rating Issuance Spread	C	N/A	N/A	NMF	4.40%	2.17%	1.24%	2.55%	2.47%	1.71%	1.69%	1.63%	1.83%	1.47%	2.64%	1.97%	2.01%	1.35%	2.29%	2.69%	2.43%
7	Current Rating Issuance Spread (Line 2)	D	N/A	N/A	NMF	3.09%	1.24%	0.93%	1.56%	1.23%	0.90%	0.87%	1.11%	1.11%	0.86%	0.93%	1.12%	1.27%	0.79%	1.39%	1.37%	1.09%
8	Issuance Spread Differential vs. BBB-	C - D	-	-	-	1.31%	0.93%	0.93%	0.99%	1.24%	0.82%	0.82%	0.53%	0.72%	0.61%	1.71%	0.85%	0.74%	0.56%	0.89%	1.32%	1.33%

Source: All issuance spreads per the Barclays Bank Utility Deal listing. Initial data began during calendar year 2008. 2024 represents deals year to date as of October 25, 2024.

Line 3: Annual average fixed rate issuance spread versus BBB-, calculated in line 8.

Line 6: Annual average fixed rate BBB- issuance spread.

Line 7: Annual average fixed rate issuance spread for current ratings shown in Line 1.

Line 8 = Line 6 - Line 7.



RRA Regulatory Focus

RRA Regulatory Focus Quarterly Regulatory Evaluations

August 7, 2024

RRA State Regulatory Evaluations — Energy

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For detailed data

Access [RRA's State Regulatory Rankings July 2024](#).

Regulatory Research Associates, a group within S&P Global Commodity Insights, evaluates the regulatory climate for energy utilities in each of the jurisdictions within the 50 states and the District of Columbia — a total of 53 jurisdictions — on an ongoing basis. S&P Global Commodity Insights produces content for distribution on S&P Capital IQ Pro.

To learn more or to request a demo, visit spglobal.com/marketintelligence.

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Executive Summary

Introduction

RRA evaluates the regulatory climate for energy utilities in each of the jurisdictions within the 50 states and the District of Columbia — a total of 53 jurisdictions — on an ongoing basis. The evaluations are assigned from an investor perspective and indicate the relative regulatory risk associated with the ownership of securities issued by each jurisdiction's energy utilities.

Each evaluation is based upon consideration of the numerous factors affecting the regulatory process, including gubernatorial involvement, legislation and court activity, and may be adjusted as events occur that cause RRA to modify its view of the regulatory risk for a given jurisdiction.

RRA reviews the ranking of a particular jurisdiction on an ongoing basis as developments occur and then holistically reviews the rankings when preparing the quarterly comprehensive ranking reports. The issues considered are discussed in RRA Research Notes, Commission Profiles, Topical Special Reports and Rate Case analyses. RRA also considers information obtained from contacts with the commissioners and staff, as well as company and government personnel. The final evaluation is an indicator of the probable level and quality of the earnings to be realized by the state's utilities as a result of regulatory, legislative and court actions.

It is important to note that RRA's rankings are from an investor perspective and are intended to provide insight into the relative risk associated with owning the securities of the jurisdictions in question. They are not an assessment of whether regulators are "doing a good job." In addition, the rankings look at not only the commission's actions but those taken by the jurisdiction's legislature, courts and chief executive, as well as the various stakeholders that intervene in the regulatory process.

About This Report

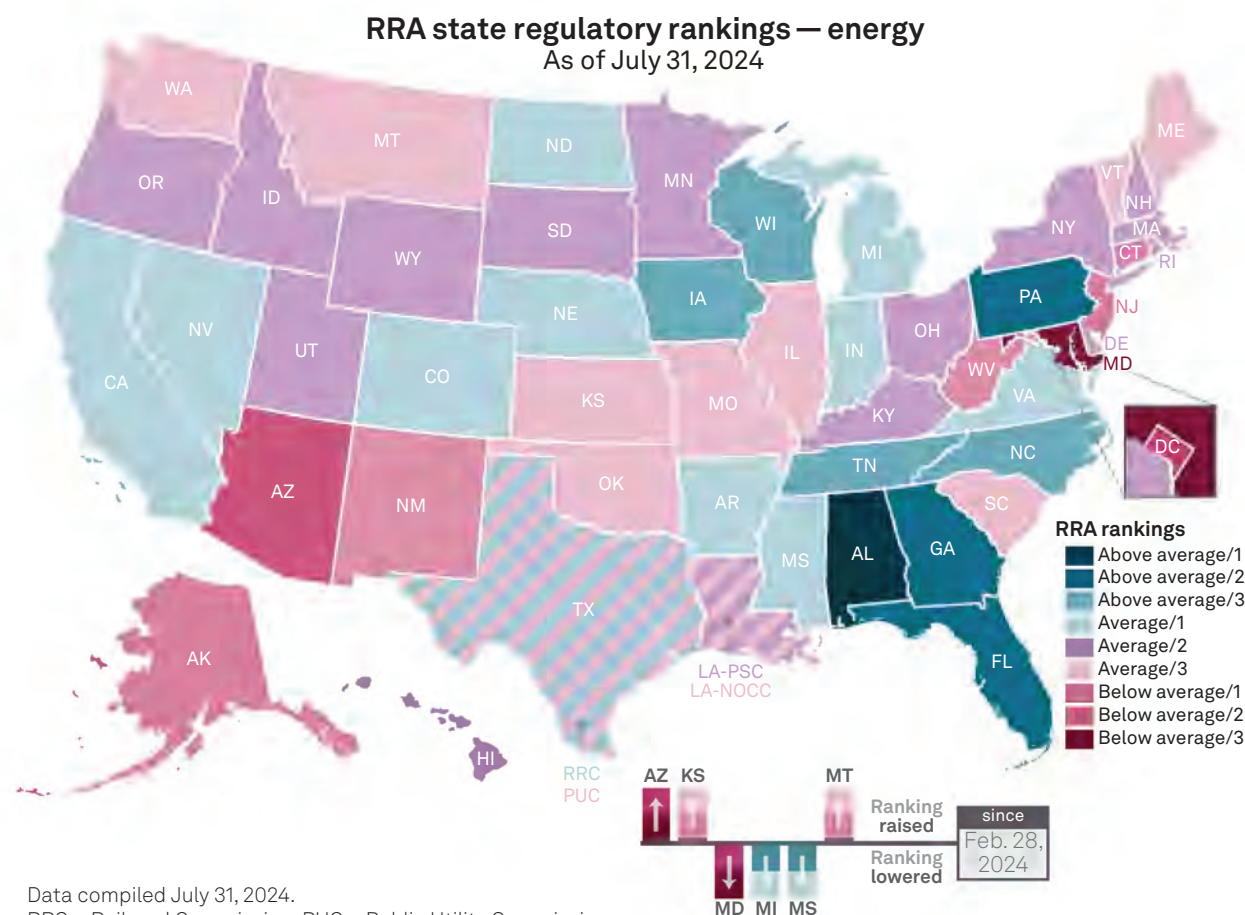
This report provides a discussion of recent changes in RRA's energy regulatory rankings, with details regarding the rationale for these changes. The report also identifies jurisdictions with ongoing proceedings or developing issues that have the potential to impact the relative regulatory risk for utilities operating within a given jurisdiction and, by extension, the ranking of that jurisdiction. The report also provides a discussion of key regulatory issues that impact the sector outlook as a whole. Finally, the report includes an overview of RRA's ranking methodology and the issues RRA examines in deriving the rankings.

The Take

In light of recent and ongoing developments, Regulatory Research Associates has altered the regulatory rankings of six state-level jurisdictions under coverage and identified nine jurisdictions that bear watching, given recent commission, legislative, gubernatorial and/or court activity.

Developments continue to unfold on a variety of key issues across the regulated utility sector nationwide on an ongoing basis, including evolving public policy related to the energy transition, accelerated capital spending driven largely by programs to meet a variety of societal goals, and higher inflation and interest rates than the US had seen in the prior four decades.

State regulators will play a pivotal role in determining the direction and magnitude of these impacts on the financial performance of the utilities that fall under their purview. How the individual jurisdictions meet these challenges will continue to inform RRA's prospective comparative risk assessments.



Data compiled July 31, 2024.

RRC = Railroad Commission; PUC = Public Utility Commission;
PSC = Public Service Commission; NOCC = New Orleans City Council.

Map credit: Joe Felizadio.

Source: Regulatory Research Associates, a group within S&P Global Commodity Insights.

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Recent ranking changes

Following a comprehensive review of the current rankings conducted during July, RRA made six ranking changes. RRA is raising the ranking of **Arizona**, **Kansas** and **Montana**, while lowering the rankings of **Maryland**, **Michigan** and **Mississippi**. The reasons for these changes are discussed in the paragraphs that follow.

Recent rate case decisions issued by the **Arizona** Corporation Commission (ACC) have been relatively constructive. The commission's decision for Pinnacle West Capital Corp. subsidiary Arizona Public Service Co. earlier in 2024 in particular represents a marked improvement over a 2021 ACC ruling that incorporated one of the lowest equity return authorizations observed by RRA in the last 40 years. Several recent commission electric rate orders have also authorized the state's investor-owned utilities to implement a constructive system reliability benefit mechanism to recognize rate base additions between rate cases. Based on these developments, RRA upgraded its rating of the Arizona regulatory environment for energy utilities to Below Average/2 from Below Average/3.

RRA also raised the ranking of the **Kansas** regulatory climate to Average/3 from Below Average/1 to recognize the recent enactment of legislation that allows the use of plant-in-service accounting for electric utility infrastructure investments that are made between a utility's base rate proceedings. Prospectively, the utilities will be permitted to defer, for future recovery, 90% of the depreciation expense and rate of return associated with "qualifying electric plant" investments. The resulting regulatory asset balances, which are to accrue carrying charges at the utility's weighted average cost of capital and be amortized over a 20-year period once included in rates, are to be adjusted to reflect any prudence disallowances ordered by the Kansas Corporation Commission. The new law is expected to mitigate the impact of regulatory lag for the electric utilities operating in the state and improve their prospects for earning their authorized returns.

Additionally, RRA also raised the ranking of the **Montana** regulatory climate to Average/3 from Below Average/1, in recognition of the constructive aspects of recent electric and gas rate case decisions issued by the Montana Public Service Commission for NorthWestern Energy Corp. In these proceedings, the Montana PSC authorized returns on equity that exceeded nationwide averages approved in settled cases for both electric and gas utilities. The authorized electric return on equity (ROE) exceeded nationwide average for all electric cases, while the authorized gas ROE approximated the nationwide average. In addition, the orders allow NorthWestern Energy to defer, for later rate recovery, incremental wildfire expenses that are capped annually. Given that the Montana PSC relies upon historical test periods and average rate base valuations that tend to exacerbate regulatory lag and that the magnitude of wildfire-associated costs appears to be accelerating rapidly for many utilities across the US Northwest, RRA views the ability of NorthWestern Energy to defer its wildfire expense for future recovery as constructive from an investor viewpoint. In pending rate cases before the Montana PSC, NorthWestern Energy is seeking a new balancing account for wildfire management costs, which may help to further reduce regulatory lag as it pertains to investments in wildfire mitigation programs and insurance costs.

By contrast, the **Maryland** regulatory climate has become increasing risky from an investor standpoint since the governor changed in January 2023. The incoming governor, Democrat Wes Moore, quickly removed three members of the Maryland Public Service Commission from office, including the chairman. The incoming chair, who has now been in the position for a little over a year, is a former attorney in the Office of People's Counsel (OPC). In the wake of this change, the OPC has become more vocal and taken a more contentious stance in regulatory proceedings.

RRA state regulatory evaluations

State-by-state listing — Energy

Jurisdiction	Ranking	Jurisdiction	Ranking	Jurisdiction	Ranking
Alabama	Above Average/1	Louisiana — NOCC	Average/3	Ohio	Average/2
Alaska	Below Average/1	Louisiana — PSC	Average/2	Oklahoma	Average/3
Arizona*	Below Average/2	Maine	Average/3	Oregon	Average/2
Arkansas	Average/1	Maryland**	Below Average/3	Pennsylvania	Above Average/2
California	Average/1	Massachusetts	Average/2	Rhode Island	Average/2
Colorado	Average/1	Michigan**	Average/1	South Carolina	Average/3
Connecticut	Below Average/2	Minnesota	Average/2	South Dakota	Average/2
Delaware	Average/2	Mississippi**	Average/1	Tennessee	Above Average/3
District of Columbia	Below Average/2	Missouri	Average/3	Texas — PUC	Average/3
Florida	Above Average/2	Montana*	Average/3	Texas — RRC	Average/1
Georgia	Above Average/2	Nebraska	Average/1	Utah	Average/2
Hawaii	Average/2	Nevada	Average/1	Vermont	Average/3
Idaho	Average/2	New Hampshire	Average/2	Virginia	Average/1
Illinois	Average/3	New Jersey	Below Average/1	Washington	Average/3
Indiana	Average/1	New Mexico	Below Average/1	West Virginia	Below Average/1
Iowa	Above Average/3	New York	Average/2	Wisconsin	Above Average/3
Kansas*	Average/3	North Carolina	Above Average/3	Wyoming	Average/2
Kentucky	Average/2	North Dakota	Average/1		

Data compiled July 31, 2024.

NOCC = New Orleans City Council; PSC = Public Service Commission; PUC = Public Utility Commission; RRC = Railroad Commission.

* Ranking raised since Feb. 28, 2024.

** Ranking lowered since Feb. 28, 2024

Source: Regulatory Research Associates, a group within S&P Global Commodity Insights.

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One of the new commissioners is a former state legislator, while the other is an attorney who has represented various stakeholder interests before state and federal regulators. Since these changes, the commission's decisions have become more restrictive from an investor viewpoint, culminating in a June 2024 decision rejecting a multiyear rate plan proposed by Exelon Corp. subsidiary Potomac Electric Power Co., and raising questions regarding future use of that framework in the state.

Contemporaneous with this decision, Anthony O'Donnell, a long-time commissioner who did not participate in issuing the order, resigned, creating uncertainty with respect to the future makeup of the commission and opening up the prospect for another more consumer-oriented replacement.

In light of these developments, RRA is again lowering the ranking for Maryland regulation, this time to Below Average/3 from Below Average/2. This is the third reduction in the jurisdiction's ranking since mid-2023.

RRA is also lowering the ranking of **Michigan** regulation — to Average/1 from Above Average/3. While the jurisdiction remains more constructive than average from an investor viewpoint, the outcomes of recent rate proceedings have been mixed and could indicate a tightening in the regulatory climate.

RRA had placed the state on watch following a 2022 rate case decision in which the Michigan Public Service Commission authorized DTE Energy Inc. subsidiary DTE Electric Co. (DTE-E) an increase in rates that was less than 10% of that requested. At the time, RRA viewed the decision to be an anomaly.

The company filed a new rate case less than three months later, asserting that existing rates and projected electricity sales could not sustain its major capital investment program. Even though the ultimate outcome of this case was more constructive, DTE-E filed a third case within four months of the decision (on March 28, 2024), which is pending. The filing has met significant resistance from consumer groups who characterize the request as “absurd in both the astounding dollars and obnoxious timing,” implying that this case will be more contentious than usual.

In a July 2 fully litigated electric rate decision for American Electric Power Co. subsidiary Indiana Michigan Power Co. (IMP), the commission authorized the company a rate increase that was about half of what IMP had requested. Rate of return and expense items accounted for most of the revenue requirement differences; among the items disallowed by the PSC were costs associated with employee incentive compensation and enhanced customer service technology, as well as a company-proposed inflation adjustment. Similar to the DTE-E proceedings, the commission voted to keep IMP’s ROE unchanged despite recent increases in interest rates.

While a recently decided (July 23) gas rate case for CMS Energy subsidiary Consumers Energy Co. (CE) was settled rather than fully litigated, the stipulated revenue requirement increase was also less than half of that requested by CE and the authorized ROE remained unchanged from the last case.

While the approved ROEs for DTE, IMP and CE remain above prevailing industry averages, they compare less favorably to these averages, which have risen, albeit modestly, in recent periods.

Against this backdrop, six major utility rate cases are pending, including the aforementioned DTE-E electric rate case, most of which are driven at least in part by capital spending programs intended to comply with state reliability and energy transition policies; outcomes consistent with the above recently completed cases could render it difficult for the companies to continue to support these initiatives.

Also of concern, the electric utilities have been subject to more intensive scrutiny since extensive outages ensued in August 2021, following a major storm.

The **Mississippi** energy utilities continue to operate under streamlined, formulaic alternative rate plans in lieu of general base rate cases. The plans provide for annual rate adjustments and reflect timely recognition of new investments and fluctuations in operating costs. When specified, authorized equity returns as calculated under the plans have generally exceeded prevailing industry averages. However, RRA is lowering the rating of Mississippi regulation at this time to Average/1 from Above Average/3. The change partially reflects the relative inexperience of the three new commissioners that were seated at the Mississippi Public Service Commission earlier in 2024 but is also necessary to maintain a normalized balance in RRA’s relative ranking of US regulatory bodies.

In conjunction with the prior review conducted during February 2024, RRA changed the ranking of **Virginia** regulation, raising it to Average/1 from Average/2, to reflect the removal of significant regulatory uncertainty with the election of two individuals to fill long-standing vacancies on the Virginia State Corporation Commission.

RRA also noted that in December 2023, RRA had lowered the ranking of the **Illinois** regulatory climate to Average/3 from Average/2 to reflect the impact of adverse rulings issued for Exelon Corp. subsidiary Commonwealth Edison Co. and Ameren Corp. subsidiary Ameren Illinois Co. in their respective multiyear grid and rate plan proceedings.

Jurisdictions to watch

In addition to the jurisdictions discussed above, where RRA has observed a shift in the regulatory climate, there are nine states where current trends and expected near-term developments could signal a shift in the level of regulatory risk for investors. Even though RRA recently revised the ranking of the regulatory climates in Arizona, Connecticut and Illinois, these jurisdictions continue to bear monitoring.

While RRA raised the ranking of **Arizona** regulation as part of its current review (discussed in the preceding section of this report), ongoing issues merit continued scrutiny, including the ACC's actions earlier in 2024 to reexamine certain long-standing rules, raising the prospect of a rollback of the commission's renewable energy requirements, among other things. While some commissioners have asserted that the rules have unnecessarily burdened ratepayers, the state's major electric utilities are continuing to transition toward more renewable heavy generation portfolios, and a disruption in the policy could have unforeseen consequences for the companies. In addition, three of the ACC's five commissioner seats are up for election this year, as are the governor and both chambers of the Arizona legislature. Changes in the makeup of these branches of state government could result in significant commission policy changes.

After lowering the ranking of **Connecticut** regulation in August 2023, RRA has continued to closely monitor the jurisdiction, which continues to be one of the most challenging in the US. Changes are currently underway to the makeup of the Connecticut Public Utilities Regulatory Authority (PURA), which under state law can be comprised of up to five members. Gov. Ned Lamont (Democrat) recently announced that long-standing commissioner John Betkoski (Democrat), who is serving beyond the end of his term, will be stepping down at the end of 2024. At the same time, Lamont announced the nomination of former state legislator and utility government affairs employee, David Arconti, Jr. (Democrat) as a new PURA commissioner to begin serving Aug. 5, subject to confirmation by the General Assembly in 2025. The other current members of the PURA, Chair Marissa Gillett (Democrat) and Michael Caron (Republican) continue to serve beyond the expiration of their terms.

Recent rate case decisions have demonstrated significant constriction in the regulatory climate and have created additional uncertainty surrounding the overall tenor of regulatory policy in the state. An appeal is ongoing of a 2023 rate case decision, in which the PURA authorized Avangrid Inc. subsidiary The United Illuminating Co. an 8.63% that reflected a 47-basis-point penalty for management and operational performance issues. Even without the penalty, the implied base ROE of 9.10% was among the lowest approved for an energy utility in recent years.

There are two gas rate cases pending for other Avangrid subsidiaries, as well as a legislatively mandated alternative ratemaking proceeding where the PURA is reviewing rules governing multiyear rate plans, earnings-sharing mechanisms, revenue decoupling and potential performance-based ratemaking measures for the electric utilities.

Even though RRA recently lowered the ranking of Illinois to reflect restrictive **Illinois** Commerce Commission (ICC) rate case rulings issued in late 2023, the state continues to bear watching, as Exelon Corp. subsidiary Commonwealth Edison Co. (ComEd) and Ameren Corp. subsidiary Ameren Illinois Co. have revised grid plan filings, pending ICC consideration. The commission is expected to render decisions on the proposals in December.

Further, the ICC’s determinations in gas proceedings in late 2023 raise the possibility of the commission continuing to disregard the recommendations put forth by its own internal experts to the detriment of the state’s utilities, raising the potential for further constriction in the regulatory climate. Three of the five commissioners are relatively new, having been in office for about a year; so, even though one of the “new” commissioners has served before, the commissioners are evolving in terms of how they work together. In addition to the revised grid plan requests, there is one pending rate case for a relatively small gas utility.

Iowa remains a jurisdiction to watch, considering the Iowa Utilities Commission’s (IUC) actions in recent advanced ratemaking decisions regarding new renewable generation projects. In October 2023, the IUC made modifications to a settlement for Alliant Energy Corp. subsidiary Interstate Power and Light Co. (IPL), including a reduction in the authorized ROE for new solar generation; the settlement had specified a 10.75% ROE, but the IUC authorized a 10.25% ROE. While being higher than prevailing industry averages, the modified ROE is below previously approved ROEs for these types of facilities.

Prior to that, in April 2023, the IUC approved Berkshire Hathaway Inc. subsidiary MidAmerican Energy Co.’s Wind PRIME project but rejected a settlement regarding the associated advance ratemaking principles, leaving the ROE to be determined in a future rate case. On rehearing, the parties reached a revised agreement that the IUC approved without modification in December 2023, including an authorization of a 10.75% ROE for the project. However, in the ruling, one commissioner expressed concerns about approving a “premium ROE” within mature renewable energy markets, potentially indicating an eventual conclusion to the practice of approving premium ROEs for these types of investments.

RRA state regulatory evaluations — Energy*

(By category, jurisdictions to watch highlighted)

Above Average/1	Above Average/2	Above Average/3	Average/1	Average/2	Average/3	Below Average/1	Below Average/2	Below Average/3
Alabama	Florida	Iowa	Arkansas	Delaware	Illinois	Alaska	Arizona	Maryland
	Georgia	North Carolina	California	Hawaii	Kansas	New Jersey	Connecticut	
	Pennsylvania	Tennessee	Colorado	Idaho	Louisiana — NOCC	New Mexico	Dist. of Columbia	
		Wisconsin	Indiana	Kentucky	Maine	West Virginia		
			Michigan	Louisiana — PSC	Missouri	New Mexico		
			Mississippi	Massachusetts	Montana	West Virginia		
			Nebraska	Minnesota	Oklahoma			
			Nevada	New Hampshire	South Carolina			
			North Dakota	New York	Texas — PUC			
			Texas — RRC	Ohio	Vermont			
			Virginia	Oregon	Washington			
				Rhode Island				
				South Dakota				
				Utah				
				Wyoming				

Data compiled July 31, 2024.

NOCC = New Orleans City Council; PSC = Public Service Commission; PUC = Public Utility Commission; RRC = Railroad Commission.

*Within a given subcategory, states are listed in alphabetical order, not by relative ranking.

Source: Regulatory Research Associates, a group within S&P Global Commodity Insights.

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It is noteworthy that two of the three current commissioners are relatively new to the IUC, having joined in May 2023. Consequently, two pending rate cases may face some uncertainty. IPL is in the midst of its first major electric and gas base rate case since 2019; hearings are underway after certain parties signed a nonunanimous settlement. Black Hills Iowa Gas Utility Co. LLC also has a case in progress — its first in about three years.

Kentucky continues to bear watching, as the Kentucky Public Service Commission's pattern of imposing modifications to rate case settlements over the past couple of years remains a cause for concern. The most recent rate case decision for a large utility occurred in January 2024, when the PSC authorized American Electric Power Co. Inc. subsidiary Kentucky Power Co. a rate increase that was meaningfully below the stipulated hike the parties had agreed to in a settlement; the revenue requirement difference stemmed largely from an adverse ruling on transmission-related cost recovery. The commission also rejected a settlement provision that called for the company to implement a distribution reliability rider.

Separately, legislation enacted earlier in 2023 prohibits the Kentucky PSC from approving requests to retire fossil fuel-fired facilities, unless the utility can demonstrate that the plant's retirement would not adversely impact ratepayers or the region's electric grid reliability. The Kentucky PSC recently approved one such proposal — by PPL Corp. subsidiaries Louisville Gas and Electric Co. and Kentucky Utilities Co. — that will result in meaningful changes to the composition of the companies' generation portfolios.

On a constructive note, a separate bill signed in 2023 allows the electric utilities to securitize certain costs associated with retired generation facilities and storm restoration efforts. The PSC recently approved Kentucky Power's securitization request. Even so, it is unclear how the commission will approach future requests.

The term of former Chairman Kent Chandler, a Democrat, expired June 30, and he left the commission instead of seeking reappointment. Gov. Andy Beshear, a Democrat, has not named a replacement. This development adds uncertainty to the state's regulatory climate at the same time that investors are seeking clarity regarding the commission's stance on a variety of regulatory matters.

New Jersey bears watching at this juncture, as Public Service Enterprise Group Inc. subsidiary Public Service Electric and Gas Co. — the largest utility in the state — is in the midst of its first combination electric and gas base rate case in several years. Proceedings are also underway for two of the major gas local distribution companies (LDCs), New Jersey Resources Inc. subsidiary New Jersey Natural Gas Co. and Elizabethtown Gas Co., with Elizabethtown Gas affiliate South Jersey Gas Co. expected to file a case by the end of 2024. The latter two LDCs are held by South Jersey Industries Inc., which is owned by Infrastructure Investments Fund US Holding 2 LP.

With these cases, as well as various energy transition proceedings under way, including a review of the state's Energy Master Plan, the New Jersey Board of Public Utilities is operating with one vacancy and three new members who took office in 2023, including the recently named president.

Due to uncertainty caused by changes in the composition of the **Oklahoma** Corporation Commission (OCC), the combative stance taken in recent proceedings by one of the long-time OCC members and the commission's decision to depart from customary practice and require significant changes to a rate case settlement, RRA lowered its ranking of Oklahoma regulation in November 2023. RRA continues to consider Oklahoma a state to watch, as two of the major energy utilities in the state have substantial rate requests pending.

The regulatory climate in **Texas**, as it pertains to the electric utilities under the purview of the Public Utility Commission of Texas, continues to bear watching. The regulatory framework in Texas and the PUC has been the focus of intense scrutiny, since a 2021 severe weather event caused widespread multiday outages and price spikes within Electric Reliability Council of Texas (ERCOT). While various proceedings are ongoing to transform the framework, the dramatic controversies that arose following that event have largely abated. Recent wildfire and severe storm activity could cause renewed focus on the utilities and the market structure in Texas.

Gov. Greg Abbott's reelection in 2022 provided a measure of stability, though there continues to be turnover at the PUC. One commissioner is serving beyond the end of term that expired in 2021, and both the PUC chair and a newly appointed commissioner are serving pending confirmation by the Senate when the legislature reconvenes in 2025.

Against this backdrop, both CenterPoint Energy Inc. subsidiary CenterPoint Energy Houston Electric Co. and American Electric Power Co. subsidiary AEP Texas Inc. filed rate cases in the first quarter of 2024 and certain intervenors took restrictive positions in their direct testimony in these cases. While a settlement was reached in the AEP Texas case, CenterPoint has filed a motion to withdraw its case in light of ongoing controversy surrounding the company's response to outages caused by Hurricane Beryl and the PUC has initiated a review of CenterPoint's actions during and following the storm.

Several of the utilities have also filed system resiliency proposals in accordance with 2023 legislation; these proceedings may prove challenging in light of the recent weather-related events.

The **Wyoming** regulatory climate bears watching, as the legal and legislative ramifications of a contentious electric general rate case decision for Berkshire Hathaway Inc. subsidiary PacifiCorp continue to play out. The utility has already filed a federal suit against the Wyoming Public Service Commission's order issued in January, arguing that the commission failed to account for the costs of maintaining reserve capacity, as mandated by the Federal Energy Regulatory Commission. PacifiCorp also plans to pursue action in state court, although the company has not specified when it plans to file.

In addition, multiple pieces of legislation enacted during the 2024 session addressed several issues that arose in recent commission proceedings, including recovery of costs associated with neighboring states' environmental policies and cost-tracking mechanisms to allow utilities to recover changes in certain electric supply costs between rate cases.

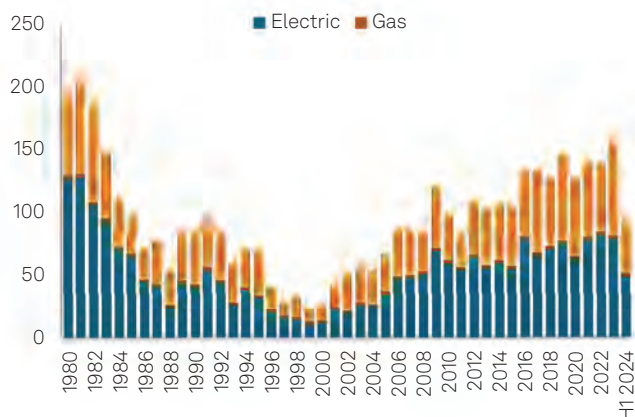
Outlook

Developments continue to unfold on a variety of key issues across the regulated utility sector nationwide. Accelerating capital spending to address a variety of public policy goals, inflation and rising interest rates present challenges for utilities and regulators and are driving an active rate case agenda across the US.

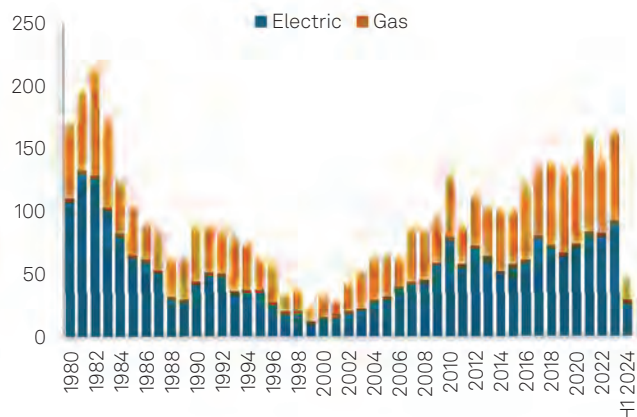
There were 164 electric and gas rate cases decided for the US investor-owned energy utilities in RRA's coverage universe during 2023, with an aggregate \$9.3 billion of rate increases approved in those cases. During the first half of 2024, 45 cases were decided, netting \$2.3 billion in rate increases.

The covered companies filed 156 new electric and gas rate cases, including limited-issue rider proceedings in 2023, with 94 filed in the first half of 2024. The combined rate increases requested in the 2023 cases aggregated to more than \$18.1 billion, while those sought in the 2024 filings added up to almost \$12.3 billion.

Major rate cases filings, 1980-2022



Major rate cases decisions, 1980-2022



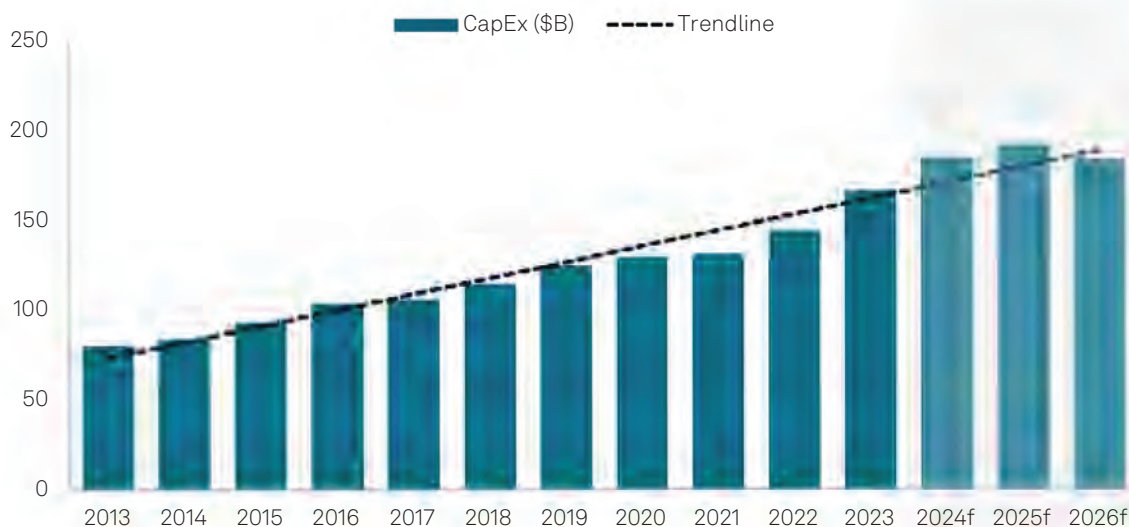
Data compiled July 24, 2024.
Source: Regulatory Research Associates, a group within S&P Global Commodity Insights
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RRA anticipates this trend of robust rate case activity will persist for the foreseeable future, driven by continued expansion in capital spending.

Capital spending has risen steadily since 2006, when the energy utilities included in RRA's sample of the publicly traded US energy utilities reported total actual capital spending of about \$52 billion; actual capital spending for the group came in at \$166 billion in 2023.

According to data gathered by RRA in March, spending is expected to expand to \$184 billion in 2024, increase to \$191 billion in 2025 and moderate to \$183 billion in 2026, bringing the total for the forecast period (2024–2026) to \$559 billion.

Energy actual and estimated capital spending



Data compiled March 27, 2024.
Capex = capital expenditure; f = forecast.
Source: Regulatory Research Associates, a group within S&P Global Commodity Insights.
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The impacts of severe weather events, such as hurricanes, winter storms and wildfires, continue to play a more prominent role in utility financial outlooks and are contributing to the active rate case agenda.

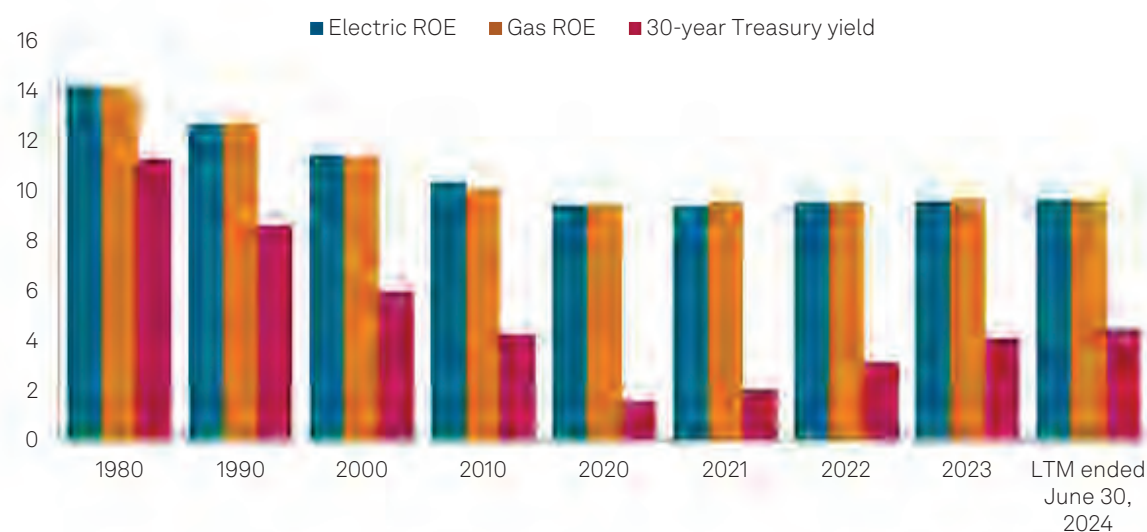
The need to recover the related costs, together with the previously listed factors, will continue to put upward pressure on rates, exacerbating prevailing concerns about ratepayer impacts and affordability, and rendering it challenging for companies to reflect higher financing costs in their authorized returns.

The spread between average authorized ROEs and US Treasury bond yield contracted to roughly 550 basis points in 2023 from almost 800 basis points in 2020. The spread has continued to shrink in 2024, such that for the 12 months ended June 30, 2024, the spread approximated 520 basis points.

Still, the spread remains higher than it was during previous periods. For example, during the early 1980s — another time when the industry faced aggressive capital spending and persistently high levels of inflation and interest rates — the spread between Treasury yields and authorized ROEs was less than 300 basis points.

Average US utility authorized ROEs; 30-year US Treasury bond yields

Select calendar years, 1980-2023, LTM June 30, 2024

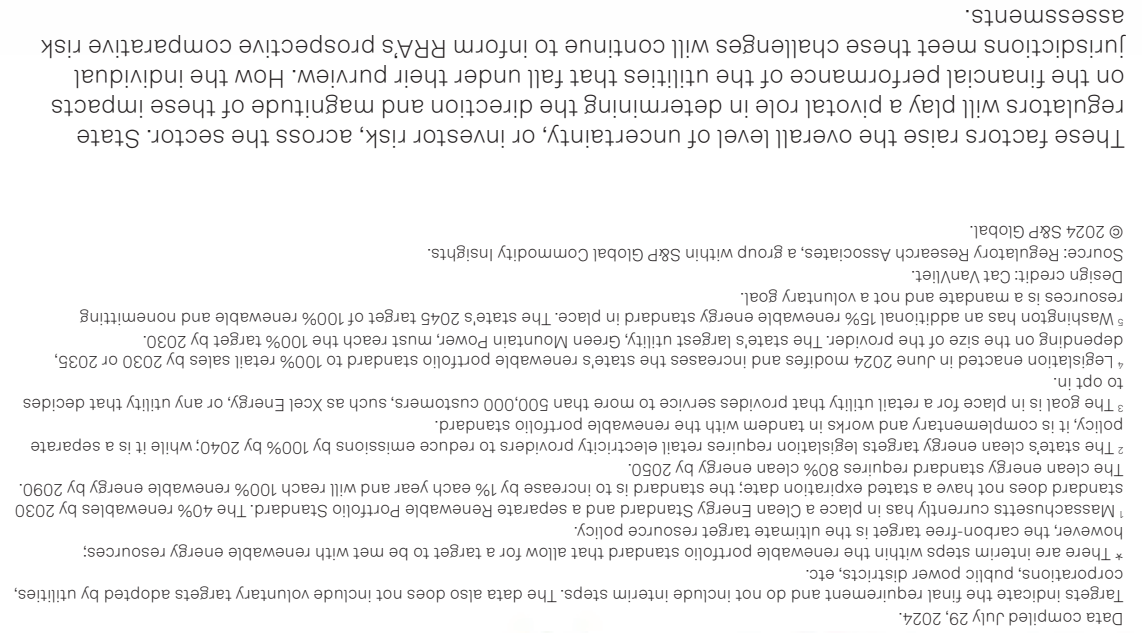


Data compiled July 24, 2024.
ROE=return on equity; LTM = last 12 months.
Source: Regulatory Research Associates, a group within S&P Global Commodity Insights.
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The evolving energy transition presents unique challenges for the electric and gas utility sector, but also offers potential for growth. Much of the evolution has come via state legislative initiatives and energy issues continue to be a focus in the current legislative session.

Energy issues will be a factor in the 2024 US presidential election, as well as state level elections, with gubernatorial elections scheduled in 11 states, legislative elections in 44 states and utility commissioners on the ballots in 10 states.

Date: December 2024



RRA’s rankings process

RRA ranks the regulatory climate in a total of 53 state-level jurisdictions, including the District of Columbia and the New Orleans City Council, and two regulatory bodies in Texas — the Public Utility Commission of Texas regulates electric utilities, while the Railroad Commission of Texas regulates gas local distribution companies.

RRA maintains three principal ranking categories — Above Average, Average and Below Average — with Above Average indicating a relatively more constructive, lower-risk regulatory environment from an investor viewpoint and Below Average indicating a less constructive, higher-risk regulatory climate.

The numbers 1, 2 and 3 within each principal ranking category indicate relative position. The designation 1 indicates a stronger or more constructive ranking from an investor viewpoint; 2, a midrange rating; and 3, a less constructive rating.

Hence, if you were to assign numeric values to each of the nine resulting categories, with a “1” being the most constructive from an investor viewpoint and a “9” being the least constructive from an investor viewpoint, then Above Average/1 would be a “1” and Below Average/3 would be a “9.”

Methodology

RRA designed the rankings to reflect the interest of equity and fixed-income investors across more than 30 individual metrics. The metrics are scored based on the covering analysts’ subjective judgment and then aggregated to create a single score for each state, with certain categories, such as the state’s history with respect to authorized equity returns, practice with respect to rate case test years and presence, or lack of alternative ratemaking provisions, weighted more heavily than others.

RRA then ranks the states from lowest to highest and distribute them among the nine categories to create an approximate normal distribution. The team then reviews the distribution and may adjust individual state rankings based on the covering analysts’ recommendations, subject to review by a designated panel of senior analysts.

The variables that RRA considers in determining each state’s ranking are largely the broad issues detailed in state commission profiles and those that arise in the context of rate cases, generic policy proceedings, legislation and gubernatorial directives.

RRA’s articles and reports on these issues are accessible through the S&P Capital IQ Pro platform, as are the jurisdictional commission profiles and RRA’s database of major investor-owned utility rate case decisions going back to 1980.

RRA State Regulatory Evaluations*

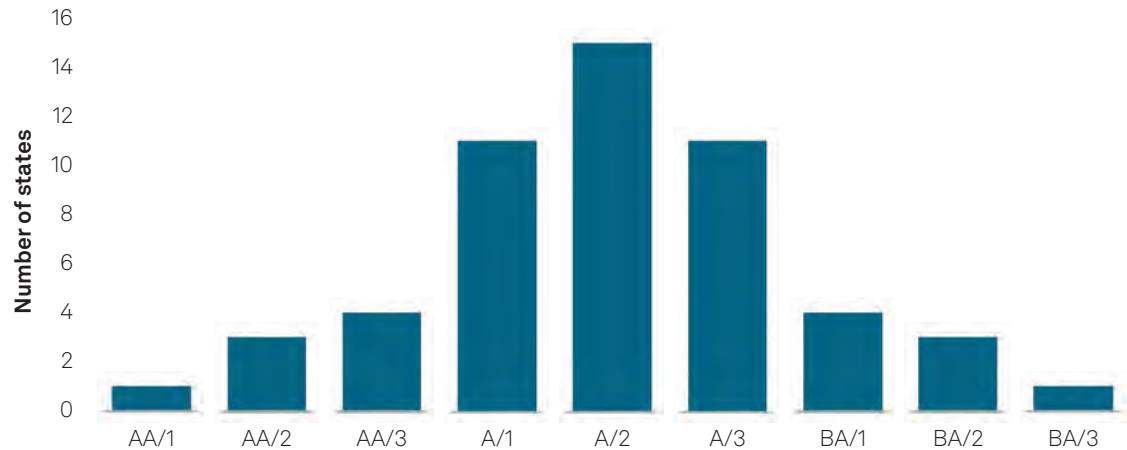
Above Average/1	Average/1	Below Average/1
Alabama	Arkansas	Alaska
	California	New Mexico
	Colorado	New Jersey
	Michigan	West Virginia
	Mississippi	
	Indiana	
	Nebraska	
	Nevada	
	North Dakota	
	Texas — RRC	
	Virginia	
Above Average/2	Average/2	Below Average/2
Florida	Delaware	Arizona
Georgia	Hawaii	Connecticut
Pennsylvania	Idaho	District of Columbia
	Kentucky	
	Louisiana — PSC	
	Massachusetts	
	Minnesota	
	New York	
	New Hampshire	
	Ohio	
	Oregon	
	Rhode Island	
	South Dakota	
	Utah	
	Wyoming	
Above Average/3	Average/3	Below Average/3
Iowa	Illinois	Maryland
North Carolina	Louisiana — NOCC	
Tennessee	Kansas	
Wisconsin	Maine	
	Missouri	
	Montana	
	Oklahoma	
	South Carolina	
	Texas — PUC	
	Vermont	
	Washington	

Data compiled July 31, 2024.
NOCC = New Orleans City Council; PSC = Public Service Commission; PUC = Public Utility Commission; RRC = Railroad Commission.
* Within a given subcategory, states are listed in alphabetical order, not by relative ranking.
Source: Regulatory Research Associates, a group within S&P Global Commodity Insights.
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As implied by the above discussion, the rankings reflect the state regulatory commission’s decisions and the impact of the actions taken by the governor, the legislature, the courts and consumer advocacy groups. The policies examined pertain largely to rate cases and the ratemaking process, but RRA also consider issues such as industry restructuring, corporate governance, treatment of proposed mergers and those related to the ongoing energy transition.

In the charts within this report that depict the rankings by category, the jurisdictions within each category are listed in alphabetical order rather than by relative position within the category.

State regulatory rankings distribution — energy



Data compiled July 31, 2024.
AA = Above Average; A = Average; BA = Below Average.
Source: Regulatory Research Associates, a group within S&P Global Commodity Insights.
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RRA endeavors to maintain an approximately normal distribution, with most rankings in the three average categories and the remainder split almost evenly between the Above Average and Below Average categories.

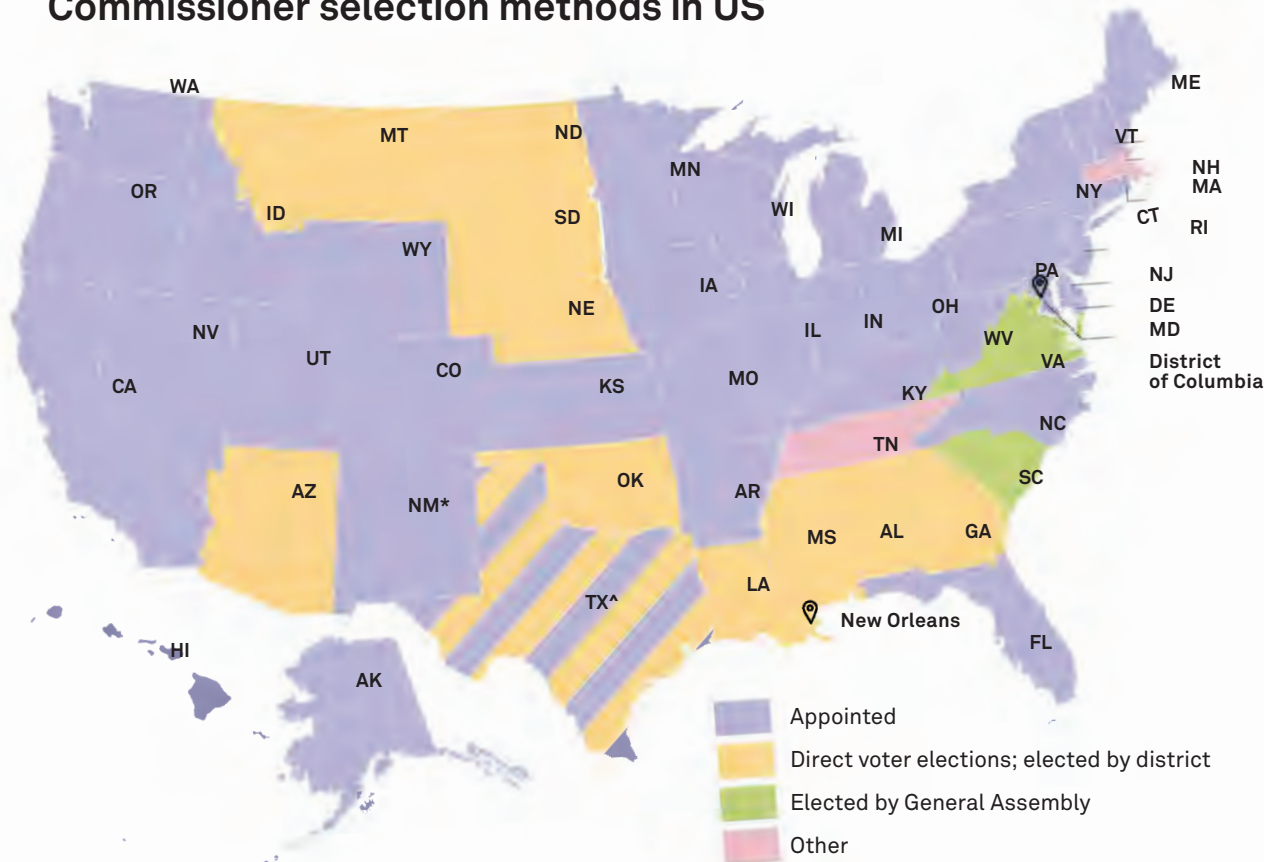
Overview of issues considered in the ranking process

The summaries below provide an overview of the variables RRA looks at, including a brief discussion of how each can impact the ranking of a given regulatory environment.

Governor/Mayor — Actions of the governor (or the mayor in the District of Columbia/City of New Orleans) may impact a jurisdiction’s ranking. RRA takes no view on which political party is the more constructive option but does consider to what extent energy issues were of focus of recent elections, whether the governor seeks to become involved in the regulatory process and the type of influence the governor seeks to exert.

Commissioner selection process/membership — RRA examines how commissioners are selected in each state. All else being equal, RRA attributes a greater level of investor risk to states where commissioners are elected rather than appointed. Generally, energy regulatory issues are less politicized when they are not subject to debate in the context of an election.

Commissioner selection methods in US



Data compiled July 31, 2024.

* Prior to Jan. 1, 2023, commissioners were chosen through general elections.

^ The Public Utility Commission of Texas members are appointed by the governor, while members of the Railroad Commission of Texas are elected in statewide elections.

Source: Source: Regulatory Research Associates, a group within S&P Global Commodity Insights.

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Realistically, a commissioner candidate who indicates support for the utilities and their shareholders or appears amenable to rate increases is unlikely to be popular with voters. In addition, there might not be specific experience requirements to run for commissioner, so a newly elected candidate may have a steeper learning curve with respect to utility regulatory and financial issues, which could make discerning the decisions that an individual might make more difficult and could increase regulatory uncertainty.

There have been some notable instances, however, in which energy issues played a key role in gubernatorial/senatorial elections in states where commissioners are appointed, with detrimental consequences for the utilities.

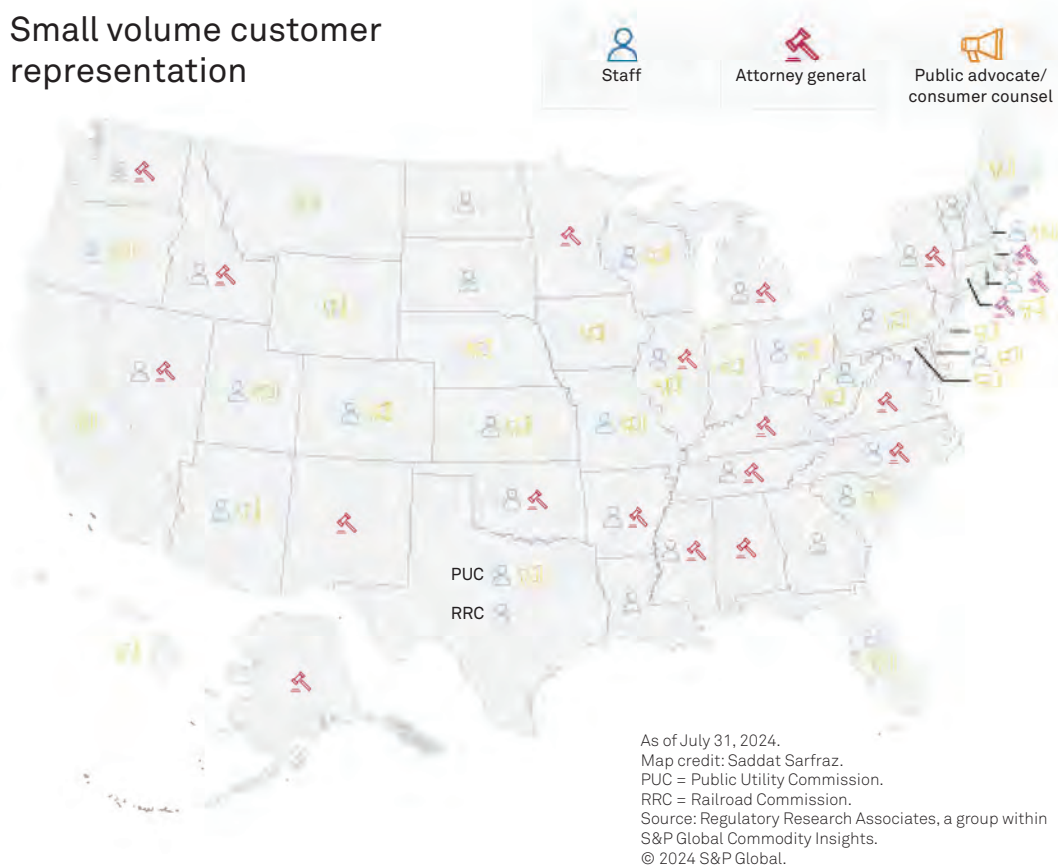
In addition, RRA looks at the commissioners themselves and their backgrounds. Experience in economics and finance and/or energy issues is generally seen as a positive sign. Previous employment by the commission or a consumer advocacy group is sometimes viewed as a negative indicator.

New commissioners with little experience or exposure to utility issues represent the highest level of risk simply because there is no way to foresee their actions or the time they will take to "get up to speed." Controversy or "scandal" surrounding an individual and/or the potential for a conflict of interest are also crucial factors to consider.

Similarly, a high rate of turnover, extended vacancies, and leaving commissioners serving for a long period of time beyond the end of their terms all add to the level of regulatory risk in RRA's view.

Commission staff/consumer interest — Most commissions have a staff that participates in rate proceedings. The staff may represent the consumer interest, act as advisors to the commissioners or play a less defined role. In addition, there may or may not be additional state-level organizations that are charged with representing the interests of a certain class or classes of customers, such as the attorney general or a consumer advocate, coalitions of cities in which the utility operates, private consortia or lobbying groups that represent certain stakeholder groups and/or large-volume commercial and industrial customers that intervene directly in rate cases.

Small volume customer representation



Generally, the greater the number of consumer intervenors, the greater the level of uncertainty for investors, as in most instances, the only party representing investors' interests is the company. The level of risk for investors also depends on the caliber and influence of the intervening parties and the level of contentiousness in the rate case process. Even though a commission may not adopt an extreme position taken by an intervenor, the inclusion of an extreme position in the record for the case widens the range of possible outcomes, increasing the risk of a negative outcome for investors. RRA's opinion on these issues is largely based on experience and observations.

Settlements — An increasing number of cases in recent years have been resolved by settlements rather than through a fully litigated process. There are often clear incentives for utilities and entities with vested interests in the sector to compromise. Utilities often obtain settlement benefits in the form of key utility policy objectives and more timely and favorable rate case outcomes than would otherwise be achievable. In some instances, however, settlement negotiations can be protracted and extend the duration of a rate case.

A settlement may set out all of the typical rate case parameters, such as rate of return and rate base, but many are “black box” settlements. These black box settlements are filed when the parties settle all, or nearly all, of their differences in the proceeding, but none of the parties want to disclose the final outcome on a given issue to avoid establishing a precedent.

Or, during settlement discussions, each party may have contemplated a certain revenue change amount as acceptable and may have performed calculations regarding the rate base and rate-of-return parameters behind their revenue requirement positions. Different values for these inputs, however, could be used in varying combinations to determine the same revenue requirement.

All else being equal, the ability of the parties to reach an agreement without having to go through a fully litigated proceeding is considered constructive, particularly since it reduces the likelihood of an after-the-fact court review. However, the agreements are generally less detailed than a fully litigated decision; so, there is a lack of clarity regarding how certain key issues were resolved.

In some instances, the parties may agree on only certain issues and will execute a partial settlement on those issues, while the remaining issues in the case will be litigated.

Rate case timing — For each state commission, RRA considers whether there is a set time frame within which a rate case must be decided, the length of any such statutory time frame and the degree to which the commission adheres to that time frame.

About two-thirds of state commissions nationwide have a rule or statute that requires a rate case to be decided within seven to 12 months of filing; very few have requirements that a case be completed in less than seven months.

Shorter time frames may apply for limited-issue proceedings or if the parties reach an agreement.

RRA generally views a set time frame as preferable, as it provides a degree of certainty as to when any new revenue may begin to be collected. In some states, however, the time frame may be extended with the company’s agreement.

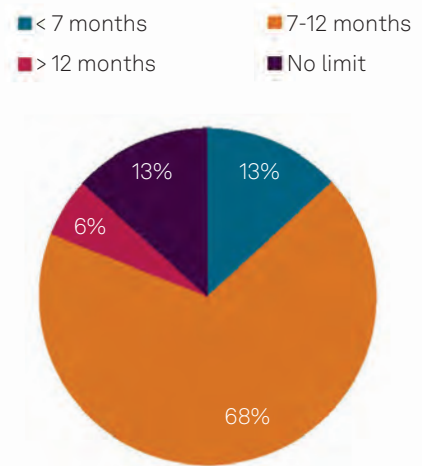
In addition, a shorter time frame for a decision generally reduces the likelihood that the actual conditions, during the first year the new rates will be in effect, will vary markedly from the test period utilized to set new rates, thus keeping regulatory lag to a minimum.

Interim procedures — RRA views the ability to implement all or a portion of a proposed rate increase on an interim basis prior to a final decision as constructive.

In jurisdictions that allow interim rate increases, the utility is required to refund any related over-collections, generally with interest, if the commission approves a rate change that is below the interim rates.

Implementation of an interim increase may be permitted by state law or may require prior approval by the commission, which may not be easy to obtain. Certain states allow a commission to establish an effective date for new rates prior to the final order in the case. The company would then be permitted to recoup any revenue not collected between the effective date and the decision date.

Rate case time frame



Data compiled as of July 31, 2024.
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Rate base — A utility’s rate base is essentially the company’s “prudent” capital investment as determined by the applicable regulatory authorities, net of accumulated depreciation and other adjustments. Rate base is the net asset base of an electric, gas or water utility upon which an allowed rate of return — usually the company’s weighted average cost of capital — is applied. The rate base value is a key variable that regulatory bodies use in a rate case to determine a utility’s revenue requirement.

A commission’s rate base policies can impact a utility’s ability to earn its authorized ROE. State statutes often outline these policies, and the commission usually does not have much latitude with respect to these overall policies.

A key factor in assessing whether the company has been accorded a reasonable opportunity to earn the authorized return is the methodology the commission uses to determine rate base.

Commissions are nearly evenly split between those that employ a year-end, or terminal, valuation and those that utilize an average approach, with one using a “date certain” methodology. In some instances, the commission may employ a different rate base valuation method, depending on the utility type or case type or based on the test year selected by the company. For example, a forward-looking test year may be used in a limited-issue rider proceeding or a multiyear rate plan, even though a historical test year is used in traditional single-step base rate cases. Some states allow the utility to choose between a forecast or historical test year but require that an average rate base be used if a forecast test year is requested, while a year-end rate base must be used if a historical test period is selected.

In general, assuming that rate bases are rising, i.e., new investment is outpacing depreciation, a year-end valuation is preferable from an investor viewpoint.

This again relates to how well the parameters used to set rates reflect actual conditions that will exist during the rate-effective period; hence, the more recent the valuation, the more likely it is to approximate the actual level of rate base being employed to serve customers once the new rates are placed into effect.

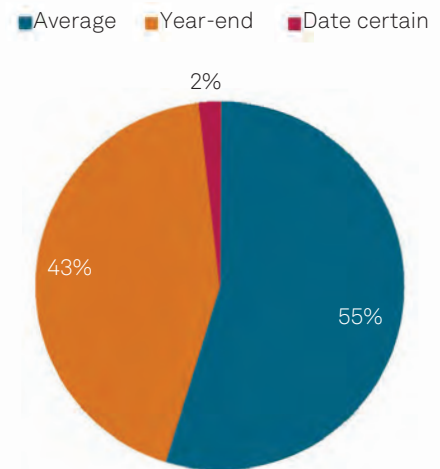
Some commissions permit post-test-year adjustments to rate base for ‘known and measurable’ items. Generally, this practice benefits the utilities when operating costs are rising and/or the company is making significant investments in infrastructure and other capital items.

The rules with respect to what constitutes a known and measurable adjustment, however, are not always specific, and there can be a good deal of controversy about what is and is not acceptable under state law or commission rules.

Another key consideration is whether state law and/or the commission generally permits the inclusion in rate base of construction work in progress (CWIP) for a cash return. CWIP represents assets that are not yet operational but ultimately will serve customers. Some states prohibit the inclusion in rate base of items that are not currently, i.e., during the test year or within a reasonably short period of time following the end of the test year, ‘used and useful’ in providing service to customers. Thus, CWIP must be excluded.

In these instances, the companies are permitted to accrue allowance for funds used during construction (AFUDC), which is essentially booking a return on the construction investment as a regulatory asset that is recoverable from ratepayers once the project in question becomes operational. While this method bolsters earnings, it does not augment cash flow and does not support credit metrics.

Rate base valuation method



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Investors generally view the inclusion of CWIP in rate base for a cash return as constructive since it helps to maintain cash flow metrics during a large construction cycle. In addition, if the company is not able to time its next rate case to coincide with the in-service date of a project, there may be a time period where the plant is operating and, therefore, the company can no longer accrue AFUDC but the utility is incurring operations and maintenance costs and booking depreciation expense, none of which are yet reflected in rates.

This becomes particularly challenging when the utility's construction program consists of several smaller projects with short ramp-up times, making it more difficult for the company to file a case quickly enough to reflect each new project.

Test year — The rate case test year is simply the 12-month period used as a baseline in examining the utility's actual revenues, expenses and rate base. In assessing the level of regulatory risk, RRA examines whether a historical test year is chosen or a future 12-month period with a forecast of the utility's revenues, expenses and rate base.

Almost two-thirds of the 53 jurisdictions covered by RRA utilize a test year that is historical at the time of filing, which increases regulatory lag and uncertainty for investors.

A fully forecast test year is generally considered to be most constructive, particularly in periods of robust capital spending, high inflation and rising interest rates.

Under a hybrid approach, the test year is partially forecast at the time the case is filed but is fully historical by the time the case is decided. The company generally files updates during the proceeding to reflect actual results as they become available.

Some jurisdictions use different test period types for different kinds of proceedings or utilities. For example, the commission may use a historical test year for single-year base rate cases but the use forward-looking test years for multiyear rate cases, alternative regulation plans and/or adjustment clauses.

Many jurisdictions allow for known and measurable adjustments to the test year, but there is considerable variability regarding how far beyond the end of the test year these adjustments may go, and statutes governing the definition of known and measurable can be ambiguous. Consequently, there can be wide disagreement among the rate case parties as to which adjustments qualify.

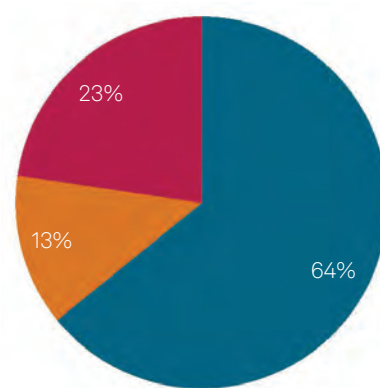
Conversely, in periods where there is only a modest amount of capital spending, i.e., depreciation is outpacing new spending, low inflation and falling interest rates, the use of a historical test year and the associated regulatory lag would work in the utility's favor, as rates would likely reflect higher costs than the utility incurs.

Rate of return — The capital structure, debt cost rates and authorized equity return combine to determine the company's weighted average cost of capital, which is known as the return on rate base in the context of a rate case.

Return on equity (ROE) — The authorized ROE is perhaps the single-most litigated issue in any rate case. Commissions generally rely on financial formulas, such as the discounted cash flow, capital asset pricing model and risk premium approaches, as applied to a proxy group of companies with similar risk characteristics.

Rate case test year

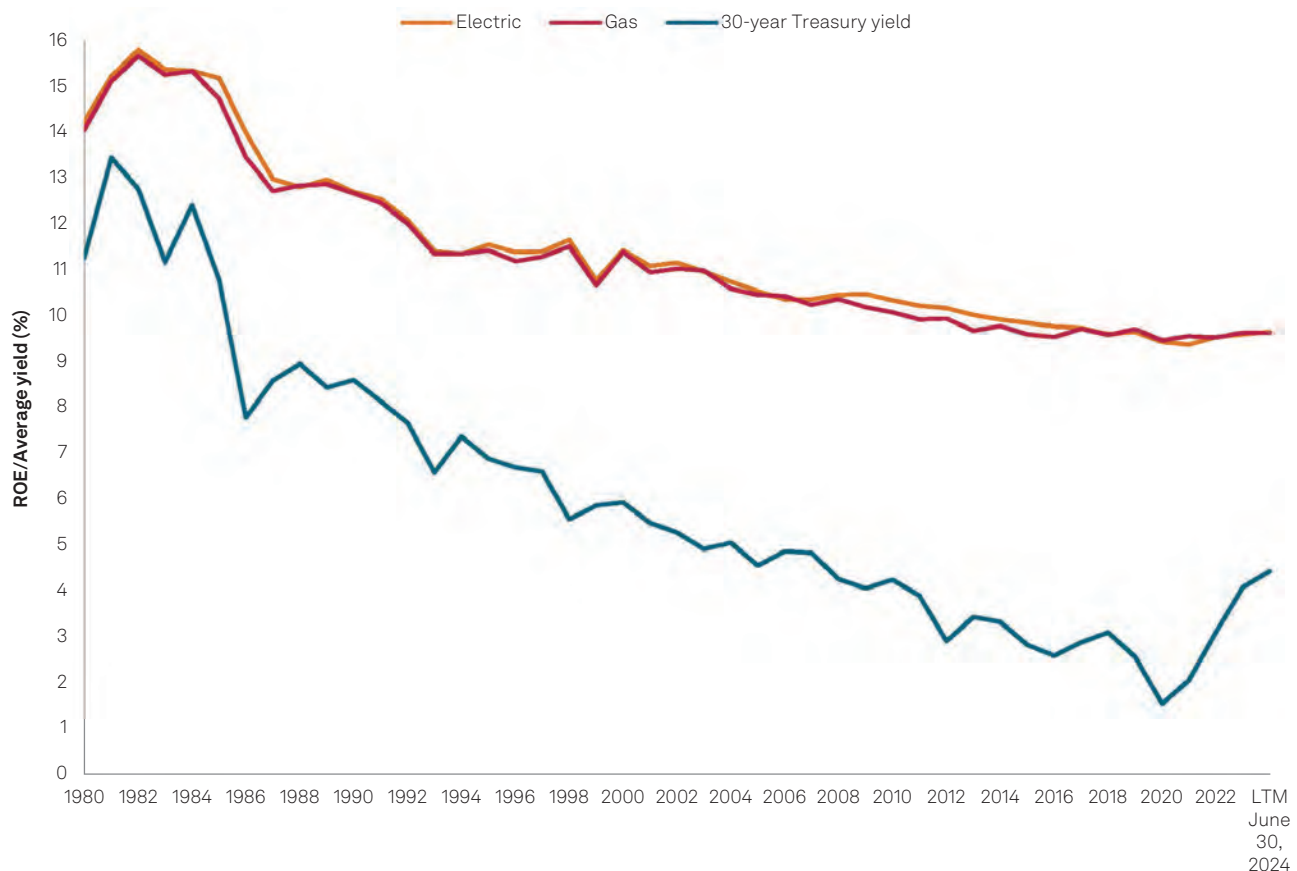
■ Fully historical ■ Hybrid ■ Fully forecast



Data compiled July 31, 2024.
Source: Regulatory Research Associates, a group within
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Average authorized ROE for US utilities, 30-year Treasury bond yields

Calendar years 1980 - 2023. LTM June 30, 2024



Data compiled July 24, 2024
Source: Regulatory Research Associates, a group within S&P Global Commodity Insights.
LTE = Last 12 months.
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While these financial models appear objective, there are subjective judgments that go into many aspects of the analysis: the appropriate peer group, the level of risk in the subject company's operations and how it may differ from that of the proxy group and whether there are any other factors that warrant an adjustment to the base calculations.

In establishing rankings, RRA looks at the ROEs historically authorized utilities in a given state and compares them to nationwide industry averages, as calculated in RRA's Major Rate Case Decisions Quarterly Update reports. When referring to these "averages," RRA means the simple average of the ROEs approved in cases decided in a particular period; returns carried over from prior years are not included in the averages.

How the authorized ROEs in a given state compare to prevailing nationwide industry averages is only one aspect of RRA's analysis. Any given utility may be authorized a relatively high ROE, but factors such as the age or "staleness" of the test period, rate base valuation method, adjustments to the company-proposed rate base and expenses, and the way the commission chooses to calculate test year revenue and other adjustments may render it unlikely that the company will earn the authorized return.

Hence, a given rate case decision may be restrictive from an investor viewpoint, even though the authorized ROE is equal to or above the average.

Capital structure — The equity layer in the authorized capital structure is another aspect of a commission rate case decision that may impact the utility's ability to earn the authorized ROE. Most commissions utilize the company's actual capital structure at a given point in time, but in some instances, the commission may rely on an imputed capital structure that represents a mix of debt and equity that the commission views as more reasonable or economically efficient. These are known as hypothetical capital structures.

The commission may include short-term debt and/or other items not generally considered to be part of the utility's cost of capital for financial reporting purposes, such as job development investment tax credits, customer deposits or accumulated deferred taxes (as an alternative to reflecting accumulated deferred tax balances as an offset to rate base). These are generally considered "ratepayer supplied capital" and are accorded a blended cost based on the company's financial weighted average cost of capital or may be assigned a cost rate of zero. Such capital structures are known as regulatory capital structures.

If a commission uses a capital structure that is more highly leveraged than the company's actual structure, this will lower the authorized overall return and the revenue requirement ultimately approved and render it more difficult for the company to earn the authorized return on its actual equity, all else being equal.

Senior capital cost rates — The costs of long- and short-term debt are generally set at the weighted average interest rate on the outstanding issuances. While it is rare, a commission may choose to exclude a recent debt refinancing that alters the company's debt cost rate or may determine that the company was slow to take advantage of opportunities to refinance debt at a lower cost rate. If this occurs, and the senior capital cost rates used to set rates are lower than those that the company will experience while rates are in effect, then the utility will have a more difficult time earning its authorized ROE.

The cost of preferred stock, where there is any, is set based on the guaranteed dividend rate on the outstanding shares.

Accounting — RRA looks at whether a state commission has permitted unique or innovative accounting practices designed to bolster earnings. Such treatment may be approved in response to extraordinary events, such as severe weather events or the COVID-19 pandemic, and changes in federal tax laws, or for volatile expenses, such as fuel and pension costs. Generally, such treatment involves deferral of expenditures that exceed the level of such costs reflected in base rates. In some instances, the commission may approve an accounting adjustment, such as a change in depreciation rates, to temporarily bolster certain financial metrics or to eliminate over-earnings without requiring a full-blown rate case.

Actions taken to address emerging issues and their impact on the utilities are also key. For example, in the wake of the energy transition movement, an increasing number of fossil generation facilities and legacy meters are being retired early. Other types of utility assets are also at risk of becoming "stranded" costs as the transition progresses. In some states, companies have been permitted to accelerate depreciation of certain facilities to complete recovery of the investment prior to an accelerated shutdown of the asset. In others, the utilities are permitted to defer the remaining book value at closure as a regulatory asset that is to be recovered over a period of years; the unamortized balance may or may not be accorded a return.

Alternative regulation — RRA generally views as constructive the adoption of alternative regulation plans that are designed to streamline the regulatory process and accelerate cost recovery or allow utilities to augment earnings in some way. These plans can be broadly or narrowly focused.

Narrowly focused plans may allow the company to retain a portion of cost savings relative to a base level of some expense type (e.g., fuel, purchased power, pension cost, etc.), permit a company to retain a portion of off-system sales revenues for shareholders or provide a company an enhanced ROE for achieving operational performance and/or customer service metrics or for investing in certain types of projects (e.g., demand-side management programs, renewable resources, new traditional plant investment, etc.).

Broad-based plans include ROE-based sharing mechanisms, formula-based rates and MRPs that apply to all cost-of-service issues rather than specific investments or expenses. These types of plans may also include performance-based incentives.

The use of plans with somewhat broader scopes, such as ROE-based earnings-sharing plans, is, for the most part, considered to be constructive, but it depends upon the level of the ROE benchmarks specified in the plan — if any deadband that applies is symmetrical around the ROE target, and whether variations from the benchmark or outside the deadband are shared symmetrically.

Formula-based ratemaking plans generally refer to frameworks where the commission establishes a revenue requirement, including a target ROE, capital structure and rate of return for an initial rate base as part of a traditional cost-of-service base rate proceeding. Once the initial parameters are set, rates may adjust periodically to reflect changes in expenses, revenue and capital investment. These changes generally occur on an annual basis, and there may be limitations on the percentage change that can be implemented in a given year or a period of years.

Others use multiyear rate plans, under which the commission approves a succession of rate changes that are designed to consider anticipated changes in revenues, expenses and rate base. The commission may approve a static authorized ROE, or the plan may provide for adjustments to the ROE during the plan's term. These plans often include true-up mechanisms to ensure that the company makes the investments it committed to at the time the plan was approved. The plans often include earnings-sharing mechanisms and may also include PBR provisions or stay-out provisions, preventing a company from filing a successive rate case until a future point in time.

Court actions — This aspect of state regulation is particularly difficult to evaluate. Common sense would dictate that a court action that overturns restrictive commission rulings is a positive. However, the tendency for commission rulings to come before the courts and for extensive and sometimes protracted litigation as appeals go through several layers of court review may add an untenable degree of uncertainty to the regulatory process. Also, as is the case with commissioners, RRA looks at whether judges are appointed or elected, as political considerations are more likely to influence elected jurists.

Legislation — While RRA's commission profiles provide statistics regarding the makeup of each state legislature, RRA has not found a specific correlation between the quality of energy legislation enacted and the political party controlling the legislature.

If the governor and legislature are of the same political party, it is less likely that controversy will arise around key policy initiatives, which may directly or indirectly impact the energy regulatory framework. In instances where energy issues are a main focus, a lack of consensus between the legislative and executive branches of the state government can create uncertainty and increase risk for utility investors and other industry stakeholders.

Key considerations with respect to legislation include how prescriptive newly enacted laws are; whether the bill is clear or ambiguous and open to varied interpretations; whether it balances ratepayer and shareholder interests rather than only “protecting” the consumer; whether the legislation takes a long-term view or is a “knee-jerk” reaction to a specific set of circumstances; and whether it could constrict the utilities’ opportunities to achieve their business objectives.

Legislative activity impacting utility regulatory issues has been robust in recent years as state policymakers, utilities and industry stakeholders seek to address ‘disruptors’ that challenge the traditional regulatory framework.

RRA follows these developments closely to assess whether the states take a balanced, sustainable approach and how the adopted policies will affect legacy utility providers.

Corporate governance — The term corporate governance generally refers to a commission’s ability to intervene in a utility’s financial decision-making process through required preapproval of all securities issuances, limitations on leverage in utility capital structures, dividend payout limitations, ring-fencing protocols and authority over mergers. Corporate governance may also include oversight of affiliate transactions.

RRA views a modest level of corporate governance provisions to be the norm, and in some circumstances, these provisions, such as ring fencing, have protected utility investors as well as ratepayers. However, a degree of oversight that would allow the commission to “micromanage” the utility’s operations, limit the company’s financial flexibility or significantly reduce the company’s ability to pursue strategic mergers would be viewed as restrictive.

In recent years, RRA has observed an increasing emphasis on environmental, social and governance issues, and supplier and workforce diversity and social justice issues. In many instances, these policies are part of the ongoing energy transition. At this time, RRA takes no view on whether policymakers/regulators should adopt these practices, but when specific policies or targets are implemented, RRA evaluates how compliance costs are addressed.

M&A activity — The pace of merger activity fluctuates over time and consequently, so does the importance of a commission’s merger policies.

Deals involving regulated utilities are subject to review by all but three of the 53 state-level jurisdictions followed RRA follows.

The review process and standards vary widely for the 50 jurisdictions where commission preapproval is required. In 20 of the jurisdictions, the commission must complete a merger review within a prescribed period, but the remaining jurisdictions have no timeline for their merger reviews, which means a commission could effectively “pocket veto” a transaction by delaying a decision until either the merger agreement between the applicants expires or pursuing the transaction is no longer feasible.

The definition of what constitutes a transaction that is subject to review can vary widely and may include sales of individual assets or a marginal minority interest, as well as larger transactions where a controlling interest or the whole company is changing hands. State law often lacks specificity with respect to what constitutes a transaction that is subject to regulatory review.

In cases where the state commission has authority over mergers, RRA reviews the type of approval standard that is contained in state law and/or has been applied in specific situations.

Legend:

- No statutory authority (Green)
- Authority with no statutory timeframe (Yellow)
- Authority with statutory timeframe (Red)

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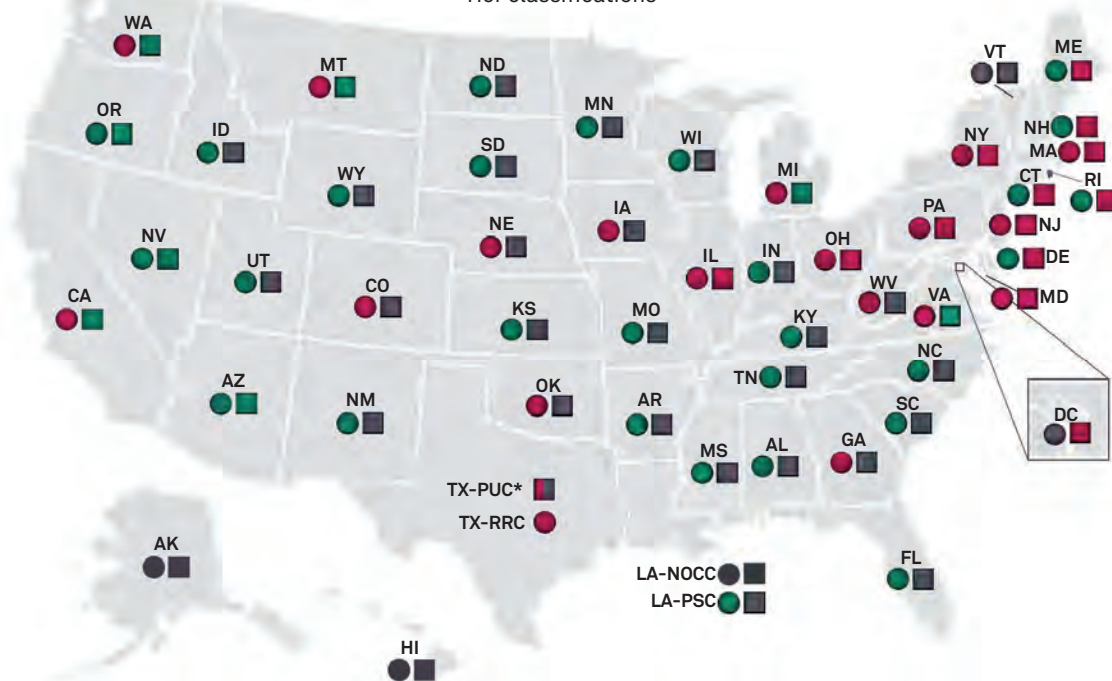
In addition, RRA considers whether the parties reached a settlement and, if so, whether the commission honored that settlement or required additional commitments. RRA also examines how politicized the process was: Did the governor (or the mayor in the District of Columbia and the City of New Orleans) play a role? Did the transaction garner much local media attention in the affected jurisdiction?

More narrowly, RRA reviews the conditions placed on the commission's approval of these transactions, including whether the company will be permitted to retain a portion of any merger-related cost savings, if guaranteed rate reductions or credits are required that are or are not directly related to merger savings, whether certain assets were required to be divested, the type of local control and workforce commitments required, whether there are requirements for certain types of investment to further the state's public policy goals that may or may not be consistent with the companies' business models and if the related costs will be recoverable from ratepayers and whether the commission placed stringent limitations on capital structure and/or dividend policy or composition of the board of directors.

Electric regulatory reform/industry restructuring — Electric industry restructuring refers to the implementation of a framework under which some or all retail customers can obtain their generation service from a competitive supplier of their choice. In a movement that began in the mid-1990s, about 20 jurisdictions implemented retail competition for all or a portion of the customers in the utilities' service territories. The last of the transition periods ended as recently as 2011, when restructuring-related rate freezes concluded for certain Pennsylvania utilities.

Electric and gas industry restructuring in US

Tier classifications



Gas tiers

- Tier 1** (Red circle) All customers are permitted to competitively procure their gas supply, irrespective of volumes.
- Tier 2** (Green circle) Select customers are permitted to competitively procure their gas supply, usually based on volume.
- Tier 3** (Grey circle) All customers procure their gas supply from the utility under bundled rates.

Power tiers

- Tier 1** (Red square) Power prices are competitively determined for all retail customers within the jurisdiction; both standard-offer-service and retail-access customers. Retail access is permitted for all customers.
- Tier 2** (Green square) Retail access is permitted to at least some customers/customer classes. Competitively priced power is limited to retail access customers. Power prices for standard-offer-service customers remain regulated. For the most part, utilities remain vertically integrated.
- Tier 3** (Grey square) Power prices are fully regulated for all retail customers. All retail customers must purchase their power from the franchised utility. Utilities are vertically integrated.

As of July 31, 2024.

NOCC = New Orleans City Council; PSC = Public Service Commission; PUC = Public Utility Commission; RRC = Railroad Commission.

* One in the Electric Reliability Council of Texas territory; three outside of it.

Map credit: Joe Felizadio.

Source: Regulatory Research Associates, a group within S&P Global Commodity Insights.

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Once the transition periods were completed, RRA focused more on how standard-offer or default service is procured for customers who do not select an alternative provider and how much, if any, market-price risk the utility must absorb. RRA classifies each of the regulatory jurisdictions into one of three tiers based on their relative electric industry restructuring status.

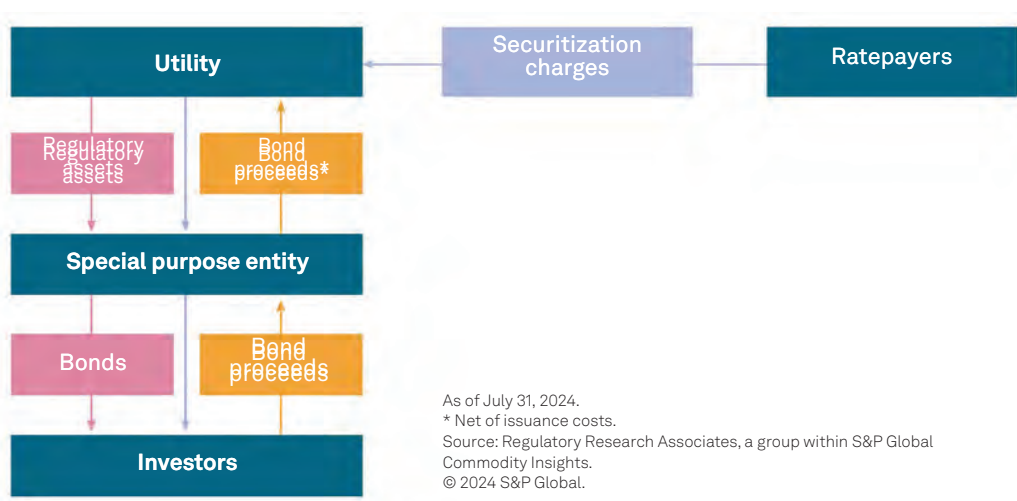
Gas regulatory reform/industry restructuring — Retail competition for gas supply is more widespread than electric retail competition, and the transition was far less contentious, as the magnitude of stranded asset costs was much smaller due to the more disaggregated structure of the industry.

Large-volume customers in most states can select their gas supply provider; the availability of gas customer choice is much more limited for small-volume customers. Like electric retail competition, RRA generally does not view a state's decision to implement retail competition for gas service as either positive or negative from an investor viewpoint. RRA primarily considers how stranded costs are addressed and how default-service, obligation-related costs are recovered.

Securitization — As it pertains to utilities, securitization refers to the issuance of bonds backed by a specific existing revenue stream that regulators and/or state legislators have 'guaranteed.' This does not mean that the securities are backed by the 'full faith and credit' of the jurisdiction but instead provides certainty that the revenue collections and/or underlying assets cannot be deemed imprudent and disallowed in the future.

Securitization generally requires a utility to assign an eligible regulatory asset and a designated revenue stream for that asset to a 'bankruptcy remote' special-purpose entity or trust; in some instances, a state financing authority fulfills this role. The trust or financing authority, in turn, issues bonds that the transferred revenue stream will service. The proceeds from the bond issuance flow to the utility and, in many cases, are used to retire outstanding higher-cost debt and/or buy back common equity, thus lowering the company's weighted average cost of capital.

Securitization flow chart



While it is unclear if securitization requires legislation, a specific legislative mandate generally improves the rating accorded securitization bonds and lowers the associated cost of capital, given that a legislatively supported revenue stream may be more difficult to rescind than a stand-alone order of a state commission. In RRA's experience, no state commission has authorized securitization in the absence of enabling legislation.

Securitization is viewed as an attractive option because it allows regulators to minimize the customer rate impacts related to the recovery of a particular utility asset. The carrying charge on the asset would be the lower interest rate applied to a highly rated, usually AAA, corporate bond rather than the utility's weighted average cost of capital or even the interest rate on typical utility bonds, which are generally rated BBB and carry higher interest rates.

At the same time, securitization reduces the investment risk for the utility by providing the utility with up-front recovery of its investment in what are usually non-revenue-producing assets. The company can then redeploy those investment dollars elsewhere.

Securitization has been used for various purposes to finance energy efficiency and conservation investment, address stranded costs associated with the implementation of retail competition or the extension of energy transition policies, reduce the impact on ratepayers of recovery of extraordinary storm costs or unusually high deferred balances or to finance bankruptcy reorganization plans.

Adjustment clauses — Adjustment clauses have been widely utilized to allow utilities to recover fuel and purchased power costs outside of base rate cases, as these costs are generally subject to a high degree of variability. In some instances, a baseline level is reflected in base rates, with only deviations from that amount addressed in the adjustment clause, whereas in others, the entire annual fuel/purchased power cost amount is reflected in the clause.

Over time, the types of costs recovered through these mechanisms were expanded in some jurisdictions to include items such as pension and healthcare costs, demand-side management program costs, Federal Energy Regulatory Commission-approved regional transmission organization costs, new generation plant investment, and transmission and distribution infrastructure spending.

RRA generally views the use of these types of mechanisms as constructive but also looks at the frequency with which the adjustments occur and whether: there is a true-up mechanism; adjustments are forward-looking or based on a historical period; a cash return on CWIP is permitted for mechanisms involving new investments; the mechanism includes an earnings-sharing mechanism that offers the utility upside earnings potential; or incentive(s) for making certain types of investment or for achieving benchmark performance that provide the opportunity to increase earnings.

Another class of adjustment clauses, known as revenue decoupling mechanisms, allows utilities to adjust rates between rate cases to reflect fluctuations in revenues versus the level approved in the most recent base rate case due to various factors.

Some of these factors, such as weather, are beyond a utility's control, and the mechanism can work both ways — it can allow the company to raise rates to recoup revenue losses associated with weather trends that reduce customer usage, and conversely, it can also require the company to reduce rates when weather trends cause usage to be higher than normal.

As energy efficiency initiatives have expanded, decoupling mechanisms have also been implemented to reduce the disincentive for utilities to pursue these types of programs by making the utilities whole for reductions in sales volumes and revenues associated with customer participation.

Some of these mechanisms also allow the utility to adjust rates to reflect fluctuations in customer usage that are brought about by broader economic issues, such as demographic shifts, large commercial/industrial customers migrating to other service areas, businesses shutting down due to changes in their respective industries, recessions and, theoretically, broad-based crises like the COVID-19 pandemic.

RRA considers a decoupling mechanism that adjusts for all three of these factors to be a “full” decoupling mechanism and designates those that address only one or two of these factors as “partial” decoupling mechanisms.

Generally, an adjustment mechanism would be viewed as less constructive if there are provisions that limit the utility’s ability to fully implement revenue requirement changes under certain circumstances, e.g., if the utility is earning more than its authorized return or if the adjustment exceeds a certain threshold.

Integrated resource planning — RRA generally considers the existence of a resource-planning process to be constructive from an investor viewpoint, as it may provide the utility at least some measure of protection from hindsight prudence reviews of its resource acquisition decisions. In some cases, the process may also provide for preapproval of the ratemaking parameters and/or a specific cost for a new facility. RRA views these types of provisions as constructive, as the utility can make more informed decisions as to whether it will proceed with a proposed project based on the expected level of support a utility proposal receives from regulators.

Renewable energy/emissions requirements — Goals for renewable energy deployment and emissions reductions have become increasingly intertwined in recent years and often need to be viewed in tandem.

As with retail competition, RRA does not take a stand as to whether the implementation of renewable portfolio standards or an emissions reduction mandate is positive or negative from an investor viewpoint. However, RRA considers whether there is a defined preapproval and/or cost-recovery mechanism for investments in projects designed to comply with these standards.

RRA also reviews if there is a mechanism, such as a rate increase cap, that limits the impact of the related public policy goals on customers. Such a mechanism could impede the utility’s ability to recover program-related costs, pursue additional investments and/or recover increased costs related to other facets of its business. RRA also looks at whether incentives, such as an enhanced ROE, are available for these types of projects.

The proliferation of renewables, particularly those that are customer-sited or distributed resources, and the related rise of battery storage and electric vehicles have raised questions regarding the traditional centralized industry framework and whether that framework needs to change, ushering in a second phase of electric industry restructuring. How these changes are implemented is something RRA considers in its rankings.

With respect to emissions, the threat of a federal carbon emissions standard for utilities and the spread of state-level initiatives have caused many companies to rethink legacy coal-fired generation, causing plants to be shut down sooner than anticipated. The way the commissions address these potential stranded costs also poses a risk for investors and is factored into the rankings.

The zero-carbon movement has also caused utilities/states to reexamine investments in nuclear facilities and, in some cases, to develop programs designed to support the continued operation of those facilities, even though they may not be economic from a competitive-market standpoint. RRA also considers the way these issues are addressed.

Rate structure — RRA looks for existing rate structures related to economic development or load retention. If such structures are in place, RRA examines whether and how any associated revenue shortfall is addressed. More broadly, RRA looks at any steps taken in rate cases to reduce/eliminate interclass rate subsidies, i.e., to equalize rates of return across customer classes.

In addition, RRA considers whether the commission has adopted or moved toward a straight-fixed-variable rate design, under which a greater portion of a company’s fixed costs are recovered through the fixed monthly customer charge, thus providing the utility greater certainty of recovering its fixed costs.

This is increasingly important in an environment where weather patterns are more volatile, energy efficiency/conservation programs proliferate and large amounts of nonrevenue-producing capital spending are required to upgrade and harden the grid.

In conjunction with the influx of renewables and distributed generation, issues surrounding the level of compensation owed to customer-owners for excess power they put back into the grid have become increasingly important and, in some instances, controversial. The way these pricing arrangements, known as net metering, are structured can impact the ability of the utilities to recover their fixed distribution system costs and, by extension, their ability to earn their authorized returns.

RRA also looks at whether the state has implemented policies to address electric vehicle charging and time-of-use rates, as well as tariffs for renewable natural gas.

Fixed vs. variable costs

Fixed	Variable
Depreciation	Gas commodity
Delivery O&M	Electric commodity
Property taxes	Generation O&M
Return on investment	
Customer service	

Data compiled as of July 31, 2024
O&M=operations and maintenance.
Source: Regulatory Research Associates, a group within
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Further Reading

Jurisdictions with ranking changes

- [New investment rider among key aspects of case ruling for Arizona Public Service](#)
- [Eversource-backed cost recovery bill approved by Kan. state House](#)
- [ONE Gas Kan. utility backs condensed performance-based approach to ratemaking](#)
- [NorthWestern files Mont. rate cases to address \\$1B of capital expenditures](#)
- [Parties recommend significant disallowances in Chesapeake’s Md. rate case](#)
- [Md. regulators reject Exelon multiyear plan, opt for one-time rate increase](#)
- [Md. governor to consider handful of energy bills as legislative session ends](#)
- [Mich. commission staff supports smaller electric rate increase for DTE Energy](#)
- [Mich. regulators adopt settlement, pare back rate increase for Consumers Energy](#)
- [Mich. regulators halve electric rate request by Indiana Michigan Power](#)
- [Recent developments signal shifts in energy regulatory climate in 2 states](#)

Jurisdictions to watch

[Ariz. regulators focus on renewables, test years, other varied issues](#)
[Decision on tap in Avangrid's Conn. gas rate cases](#)
[Iberdrola deal to buy rest of Avangrid to face some regulatory scrutiny](#)
[United Illuminating files brief urging court to reverse negative rate decision](#)
[Conn. lawmakers look to update state climate goals, study gas phaseout options](#)
[Commonwealth Edison seeks to address regulatory uncertainty with new grid plan](#)
[With new grid plan filing, Ameren seeks to assuage commission's prior concerns](#)
[Commission to resolve post-hearing issues in Alliant's Iowa base rate case](#)
[Alliant's Iowa settlement includes 5-year electric rate increase moratorium](#)
[Black Hills Iowa Gas requests \\$20.7M rate hike for capex, higher operating costs](#)
[Rider risk profile a prominent focus in Columbia Gas' Ky. rate change request](#)
[Elizabethtown Gas files 1st rate case since acquisition by infrastructure fund](#)
[Okla. commission staff concerned with AEP utility's rider, tree trimming plans](#)
[Okla. commission staff criticizes vegetation management practices at OGE utility](#)
[Parties reach unopposed settlement in AEP Texas rate case](#)
[Settlement talks begin in CenterPoint's Texas rate case amid storm controversy](#)
[Texas governor appoints consumer advocate to PUC](#)
[Wyo. consumer advocate seeks additional conditions in Enbridge-Dominion deal](#)
[Low-carbon standard, rates, reliability top list for Wyo. lawmakers](#)

Industry trends

[Energy authorized returns edge higher in H1 2024](#)
[First-half 2024 utility rate requests above average but trail 2023's record](#)
[Flurry of energy rate case activity underway in US](#)
[Utility capex primed for profusion in 2024 and beyond](#)

RRA reference reports

[Demystifying rate base mechanics can be instructive for industry practitioners](#)
[Understanding main aspects of case process empowers utility sector participants](#)

For detailed information about each jurisdiction's policies and regulatory ranking, visit the [Commissions page](#) on S&P Capital IQ Pro.

For a full listing of past and pending rate cases, rate case statistics and upcoming events, visit the [Energy Research Home Page](#) on S&P Capital IQ Pro.

For a complete, searchable listing of RRA's in-depth research and analysis, please go to the [Energy Research Library](#) S&P Capital IQ Pro.

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About Regulatory Research Associates

Regulatory Research Associates, a group within S&P Global Commodity Insights, is the leading authority on utility securities and regulation. Understanding the financial and strategic impact of federal and state regulation is a key to success in the energy business. For more than 40 years, Regulatory Research Associates has been the leading provider of independent research, expert analysis, proprietary data and consultation on utility securities and regulation. S&P Global Commodity Insights produces content for distribution on S&P Capital IQ Pro.

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Global Research and Evidence Lab
10 May 2023

US Utilities

Pricing Power Analysis and Regulatory Rankings

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Updated Regulatory Rankings

We have updated the regulatory rankings of the 58 jurisdictions in North America across five Tiers (Tier 1 is most constructive, Tier 5 is least constructive). See Figure 3. We rate the jurisdictions using seven criteria. We believe constructive regulation provides a positive feedback loop of consistent and fair outcomes for investors, that also results in better customer service and satisfaction, which is what regulators want to see to constructively regulate. Jurisdictions that moved up are AL, ID, and PA (to Tier 1 from Tier 2), CA, MO, and ND (to Tier 2 from Tier 3), and NY (to Tier 4 from Tier 5). We would also note that while LA remained in Tier 3 it moved up significantly from the bottom to the top of that Tier. Jurisdictions that moved down are IN and MI (to Tier 2 from Tier 1), AK (to Tier 4 from Tier 3), and DC, MS, and NM (to Tier 5 from Tier 4).

Lower Relative Pricing Power a Risk to Regulation and Growth

Our pricing power analysis tends to point to where regulatory strain or growth pressures may develop. We saw this last year when our metric showed lower relative pricing power for EXC, PEG, NI, EMA, D, PCG, WEC, and NEE. Most either lowered or rebased their growth - EXC, PEG, and NI; or, faced material regulatory headwinds - EMA and the rate cap legislation in NS, and D with the overall strategic review and legislation in VA reworking the regulatory construct. For WEC, although the rate case outcome was constructive in WI, the rhetoric during the hearing was not encouraging. Where pricing power did not pressure regulation or earnings growth was for NEE and PCG. We rank FL as the most constructive regulatory jurisdiction in North America and NEE's rates at FPL are set through 2025. We also believe CA regulation is increasingly constructive around wildfire and clean energy policy goals, as evidenced by the move to Tier 2 in this year's jurisdiction rankings. Companies that show lower relative pricing power in our updated analysis that did not in May 2022 are AES, CMS, CNP, DTE, ED, ES, and EVRG. Of these names we are Buy rated on AES mainly for the unregulated story, and CNP, where we think significant customer growth in TX can help alleviate pricing pressures. We are Neutral on the remaining names with lower pricing power in '23 vs. '22 and remain diligent in watching regulatory processes in MI for CMS and DTE, in CT for ES, and in KS for EVRG as well as policy in NY for ED. Names that showed continued lower relative pricing power in '23 vs. '22 are D, EXC, NI, PEG, and WEC where D, EXC, NI, and PEG have either gone into or completed a strategic review and/or lowered/rebased their growth rates. WEC remains in a Tier 1 regulatory jurisdiction in WI, but the LNT rate case in that state, as well as WEC's gas case in IL are worth watching.

Updated Pricing Power Analysis - Affordability Inflation vs. Growth

Our analysis places the group across one of four quadrants, although a little more than half of companies are clustered around the combined medians (see Figure 1). We have overlayed the weighted average regulatory ranking quartile of each company on this matrix indicated by color as noted. Those companies outside the median zone in one of the four quadrants are: (I) Pricing power with lower costs or higher weighted average disposable income growth: PCG, PPL, and SO; (II) Lower pricing power, requiring constructive regulation to maintain growth: AES, CMS, CNP, EXC, ES and NI; (III) Lower pricing power that would require constructive regulation or policy support to accelerate growth: D, DTE, ED, EVRG, PEG, and WEC; (IV) Pricing power and opportunity to accelerate growth if regulation is constructive: EIX, OGE, and PNW.

ANALYSIS OF PRICING POWER IN REGULATED UTILITIES

Given investor focus on inflation and its potential impacts, and the potential for accelerating capital expenditures and rate base growth into the clean energy transition ([Cap-Ex Update: Breakthroughs in Spending](#), 30 March 2023) we analyzed the "pricing power" of regulated utilities. Instead of just a straight analysis of annual increases in bills, we took the estimated bill increase divided by the weighted average personal income by jurisdiction for each company. We then estimated the total increase in that metric through 2029 and annualized that number. We believe this is a more accurate representation of "pricing power" for a utility as it takes into account the relative affordability of the projected bill increases across the relative incomes of the customer base across a company's jurisdictions.

To calculate bill inflation, we used each company's projected capital plan and extended that at flat capex to 2029 from the end of each company's forecast to determine rate base growth. For fuel expenses, we used forward curves and retired all coal generation by 2028 and replaced it with a third each of solar, wind, and natural gas. We incorporated non-fuel O&M increases of 2%/year, held interest expense at 5.5%, used 30-year depreciation, and an allowed return of 10.2% and a 48% equity ratio. While individual companies may achieve better or worse metrics, we tried to create an average metric across companies over the eight-year time frame. Retail sales growth averaged approximately 1% per year.

To calculate disposable income, we took each state or province's disposable income in 2021 and grew it by forecast gross state or provincial product through 2025 and then held annual gross state or provincial product growth constant through 2029. For each company we weighted this by earnings power by jurisdiction to estimate the weighted average disposable income.

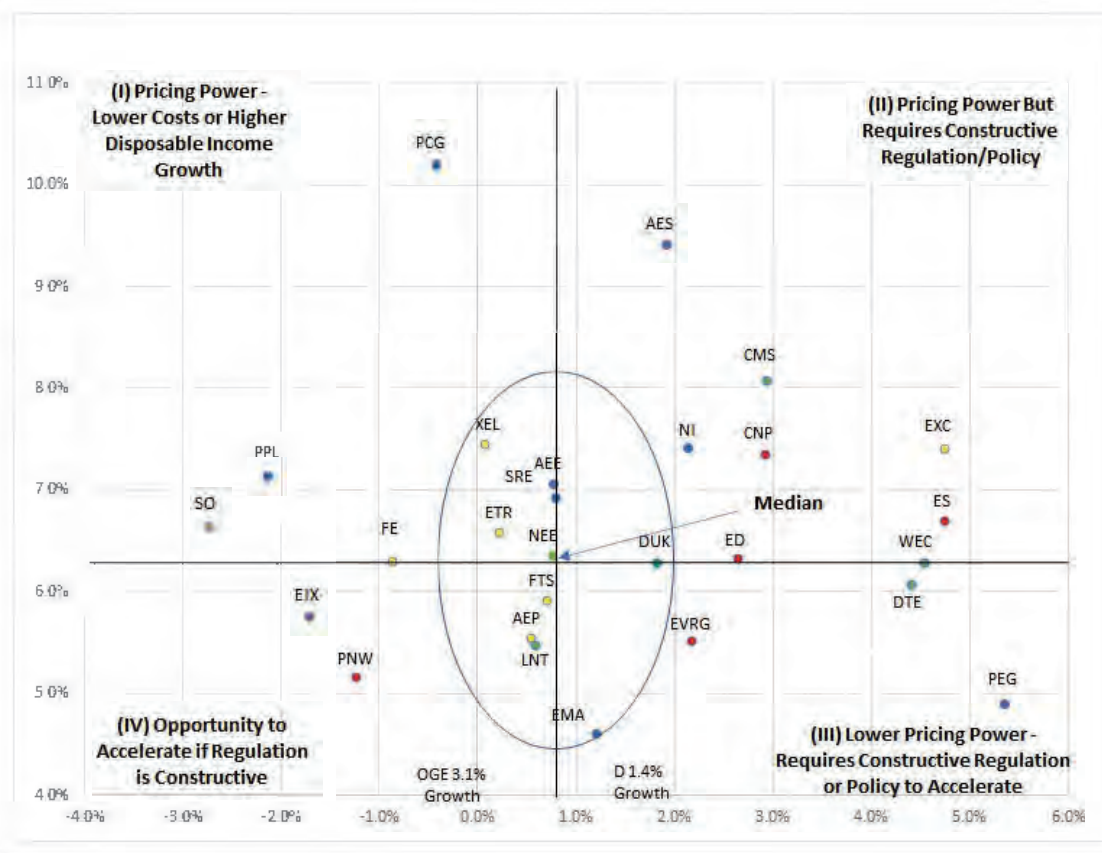
Dividing annual bills by weighted average disposable income projected into 2029 and seeing how much that grew versus the same metric in 2021, and annualizing that growth provides a measure of bill affordability inflation. When we graph this against annualized projected utility and parent only EPS growth, the results are shown in Figure 1 below. We have also overlayed the weighted average regulatory ranking quartile onto this graph through the color of the dots: 1st quartile is green, 2nd quartile is blue, 3rd quartile is yellow, and 4th quartile is red. This relative regulatory quartile is important, as more constructive regulation will likely allow for more EPS growth with more affordability inflation, all else equal.

In Figure 1, about half of the companies end up around the median level of growth and affordability inflation of ~6.3% and just under 1%, respectively. Those outside of the median grouping end up in one of four quadrants: (I) high growth and low affordability inflation - where there is clear pricing power due to lower cost structures or higher disposable income growth; (II) high growth and higher affordability inflation, where pricing power needs to be maintained by constructive regulation or policy support to maintain growth; (III) lower growth and higher affordability inflation - where there is lower relative pricing power and it would require constructive regulation or, more likely a state or provincial energy policy initiative to accelerate growth above the median, and (IV) low growth and low affordability inflation - where there is an opportunity to accelerate growth if regulation is constructive or where a company might get stuck at lower than median growth if regulation is more challenging.

Our pricing power analysis tends to point to where regulatory strain or growth pressures may develop as we saw last year when our metric showed lower relative pricing power for EXC, PEG, NI, EMA, D, PCG, WEC, and NEE. Most either lowered or rebased their growth - EXC, PEG, and NI or faced material regulatory headwinds - EMA and the rate cap legislation in NS; D with the overall strategic review and legislation in VA reworking the regulatory construct. For WEC although the rate case outcome was constructive in WI the rhetoric during the hearing was not encouraging. Where pricing power did not pressure regulation or earnings growth was for NEE and PCG. We rank FL as the most constructive regulatory jurisdiction in North America and NEE's rates at FPL are set through 2025. We also believe CA regulation is increasingly supportive around wildfire and clean energy policy goals, as evidenced by the move to Tier 2 in this year's jurisdiction rankings. Companies that show lower relative pricing power in our updated

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Figure 1: EPS Growth vs. Affordability Inflation May 2023



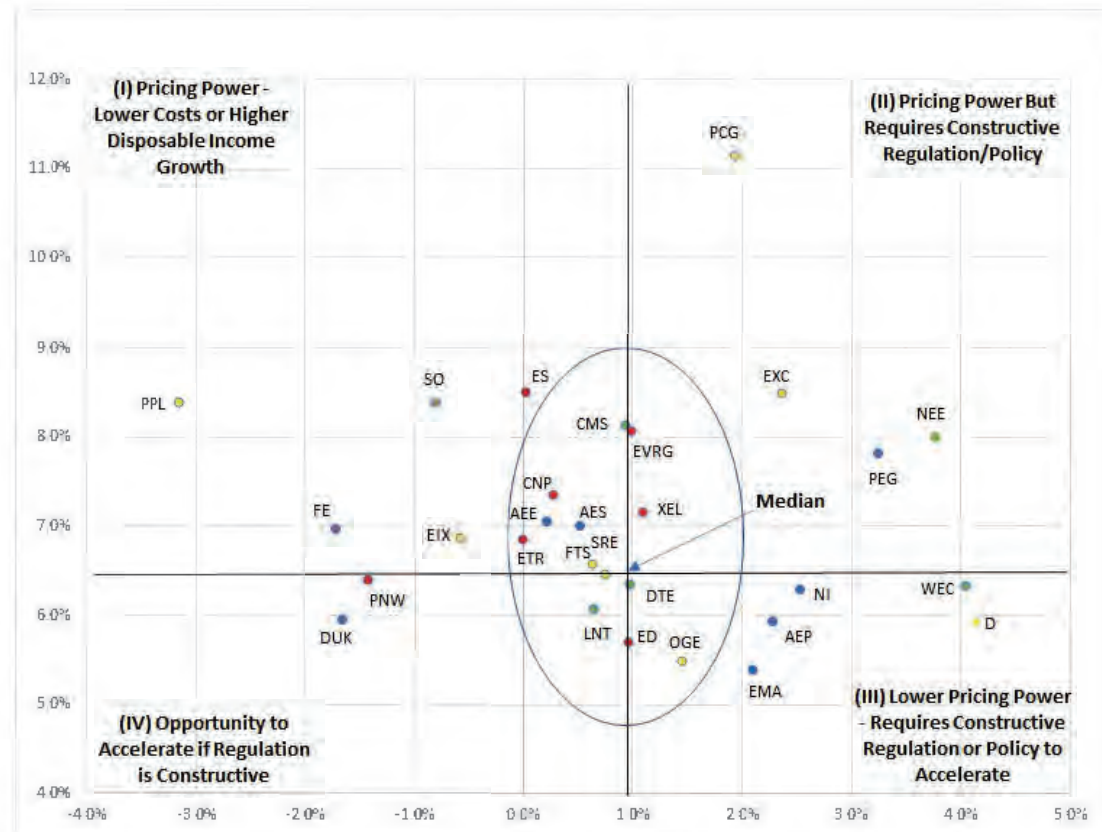
Source: Company filings, FactSet, S&P Global Market Intelligence, UBS Equity Research estimates

NOTES:

Wtd. Avg. Regulatory Rank in indicated by color. Green is 1st quartile, Blue is 2nd quartile, Yellow is 3rd quartile, and Red is 4th quartile.

Bill inflation is calculated as the increase in annual bills/disposable income, annualized. Disposable income is grown at state forecast GDP, and a weighted average is taken by company.

Figure 2: EPS Growth vs. Affordability Inflation May 2022



Source: Company filings, FactSet, S&P Global Market Intelligence, UBS Equity Research estimates

NOTES:

Wtd. Avg. Regulatory Rank in indicated by color. Green is 1st quartile, Blue is 2nd quartile, Yellow is 3rd quartile, and Red is 4th quartile.

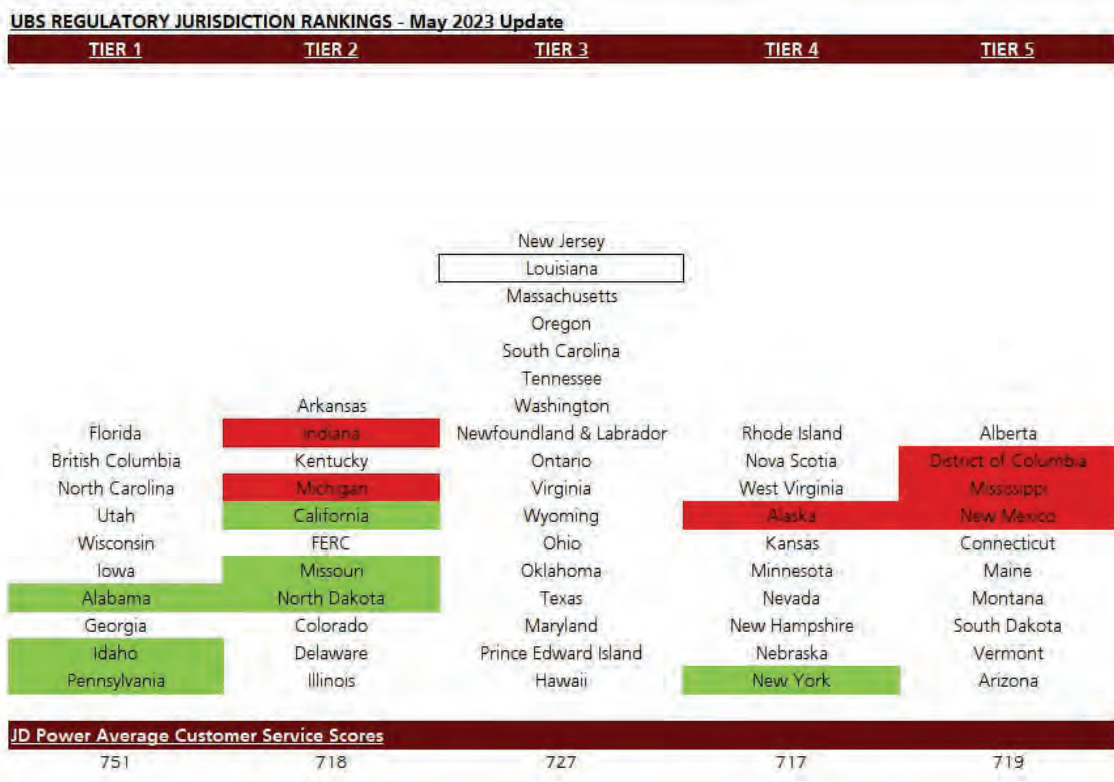
Bill inflation is calculated as the increase in annual bills/disposable income, annualized. Disposable income is grown at state forecast GDP, and a weighted average is taken by company.

UPDATED REGULATORY RANKINGS

We are updating our jurisdictional regulatory rankings which we do approximately every 6 months. Our last update was in November 2022 [Shifting Regulatory and Growth Quartiles](#).

We rate the jurisdictions using seven criteria. We believe that constructive regulation provides a positive feedback loop of consistent and fair outcomes for investors, that also results in better customer service and satisfaction, which is what regulators want to see to constructively regulate. At the bottom of Figure 3 we show the average JD Power Customer Service scores, which are mostly consistent with our tiered rankings. Those jurisdictions highlighted in green moved up, and those highlighted in red moved down versus our previous rankings. As a reminder the table reads as an ranking histogram so Florida in Tier 1 is more constructive than British Columbia in Tier 1, and so on.

Figure 3: UBS North America Jurisdictional Regulatory Rankings



Source: S&P Capital IQ Pro, FactSet, JD Power, UBS Equity Research

NOTES: Green indicates moved up a Tier since last rankings, Red indicates moved down a Tier. LA is highlighted given it moved significantly within Tier 3 since the last rankings

The ranking criteria are as follows:

1) Elected vs. Appointed Commissions: Elected commissioners tend to focus more closely on managing customer affordability which can dampen investment vs. appointed commissions that tend to be more policy driven, all else equal.

2) Tendency to Settle vs. Litigate Rate Cases: Settlements have the advantage of being quicker, less risky and less prone to legal appeal than fully litigated rate proceedings. States that regularly settle are preferred by investors.

3) Regulatory Lag: Regulatory lag is the difference between authorized returns on equity and earned returns resulting from time lag between dollars invested in rate base and authorized revenues reflecting that spending. We rank regulatory lag based on the time it takes to reach a decision in rate cases.

4) Rate and Customer Bill Levels: Utilities' prices are often a material factor in state economic development. States with high prices versus their surroundings tend to scrutinize utility investment more closely than states with low bills. We look at the average rate and the average residential bill.

5) Allowed Return Spread: We measure the return spread over 10-year Treasury note of the ordered rate cases since 2010 by jurisdiction. As rate of return setting policies and practices are grounded in decades of case law, jurisdictions that allow high and low return spreads tend to continue with that practice.

6) Regulatory Mechanisms: We include an average of eight mechanisms. These include things like tracking mechanisms, forward test years, formula rate plans, and performance based regulation.

7) UBS Subjective Investor Friendliness Factor: Based on our knowledge of current commission actions.

Biggest Changes to the State Rankings

With this review we highlight the largest positive and negative ranking votes out of 58 total jurisdictions we are covering in the United States and Canada:

Positive Changes

- Alabama. Constructive tracking mechanisms, high ROE spreads, and lower relative rates moved the state into Tier 1 relative to other jurisdictions.
- Idaho. Continued low rates moved the jurisdiction into Tier 1 relative to other jurisdictions.
- Pennsylvania. Relative improvement given other states fell to Tier 2.
- California. Regulatory lag improved from 5th quintile to 4th which moved the state from the top of Tier 3 in our May 2022 analysis into Tier 2.
- Missouri. Regulatory lag improved from 3rd quintile to 2nd, moving the state to Tier 2 from near the top of Tier 3 in our prior analysis.
- North Dakota. Settlements became more common, and historical ROE spread improved to 2nd quintile from 3rd quintile, offset slightly by regulatory lag increasing, moving to the 4th quintile from the 3rd.
- Louisiana. Did not move out of Tier 3, however did have a significant move worth highlighting from the bottom to the top of that Tier. ROE spread to the 10 year improved and it moved to 2nd quintile from 4th in that category.
- New York. Settle vs. Litigate improved to 1st quintile from the 2nd.

Negative Changes

- Indiana. Cost to customers got a bit worse with a move to the 3rd quintile from the 2nd which was enough to move the state to Tier 2 from the bottom of Tier 1 in May 2022.
- Michigan. ROE spread to the 10 year came in to 3rd quintile from 2nd, and we moved our subjectiveness ranking to 2nd quintile vs. 1st quintile.
- Alaska. Moved lower as other states moved higher so lost relative positioning into Tier 3
- District of Columbia. Lower rate of settlements, 5th quintile ROE spreads, and 4th quintile regulatory lag pushed this jurisdiction to the top of Tier 5 relative to other jurisdictions from the bottom of Tier 4 in May 2022.
- Mississippi. Elected commission with higher relative costs to customers average regulatory lag, and 5th quintile ROE spreads versus risk free rates, pushed this state into Tier 5 relative to other jurisdictions.
- New Mexico. Was at the bottom of Tier 4 in our May 2022 analysis and was a relative mover to Tier 5 as New York improved into Tier 4.

Valuation Method and Risk Statement

North America Utilities: Our valuation methodology for the group is price to earnings based. The adjustments applied fall into 7 categories. These are as follows: 1) Group Valuation Bias: Flowing from our valuation work comparing Baa corporate yields to group dividend yields and RU price to earnings ratios to those for the S&P 500, we incorporate a positive or negative adjustment to our group multiple representing the gap we calculate to the nearest 5%; 2) Growth Adjustment: We adjust our valuations based on the growth quartile each utility occupies. First quartile receives a 4% premium, second quartile a 2% premium, third quartile a 2% discount and fourth quartile a 4% discount; 3) Regulatory Adjustment: Our valuation adjustments for regulation are based on our proprietary Regulatory Rankings. First quartile jurisdictions receive 10%, second quartile 5%, third quartile -5% and fourth quartile -10%; 4) Clean Energy Transition: A potential 5% premium for a risk adjusted clean energy transition growth opportunity; 5) Earnings Consistency Adjustment: For companies that fall in the top quartile of % Time Beat/Meet, we include +4%; 6) Multi Utility Diversified Valuation: For multi utilities (those with more than 15% of unregulated earnings), we perform a sum-of-the-parts analysis applying business/region appropriate valuations to those diversified businesses; 7) One-off Adjustments: In special situations, we value risk on an issue-specific basis. Common areas where we apply such an adjustment include: large project construction risk, legal risk, and announced M&A completion risk. We identify the following risk factors: rising interest rates; regulatory and policy risks; operational risks; construction risks; cybersecurity risk to the transmission grid and/or customer data, and extreme weather events.

IPPs: Our valuation methodology is based on mid-cycle EV/EBITDA multiples of 7.1x.

CEG: Our valuation methodology is based on an infrastructure comp on EV/EBITDA.

Water Utilities: Our valuation methodology for the group is price-to-earnings based. Our methodology includes: 1) Growth Adjustment: We adjust our valuations based on the growth quartile each utility occupies. First quartile receives a 4% premium, second quartile a 2% premium, third quartile a 2% discount and fourth quartile a 4% discount; and 2) Regulatory Adjustment: Our valuation adjustments for regulation are based on our proprietary Regulatory Rankings. First quartile jurisdictions receive 10%, second quartile 5%, third quartile -5% and fourth quartile -10%.

North American utilities: We identify the following risk factors for the sector overall: rising interest rates; regulatory and policy risks; operational risks; construction risks; cybersecurity risk to the transmission grid and/or customer data, and extreme weather events.

IPPs: We identify the following risks for the sector: Power prices, fuel prices, capacity prices, supply and demand for electricity, extreme weather, economic conditions, and cost of financing and collateral hedging.

CEG: We identify the following risks for CEG: Power price volatility above the nuclear PTC price, uranium fuel prices, supply and demand for electricity, cost of financing and nuclear operational risk.

Water Utilities: We identify the following risks: rising interest rate; regulatory and policy risks; operational risks; construction risks; water quality, safety and contamination risk; physical risk to the water sources, treatment or delivery systems; cybersecurity risk; drought and extreme weather events.

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Neutral	FSR is between -6% and 6% of the MRA.	36%	21%
Sell	FSR is > 6% below the MRA.	10%	18%
Short-Term Rating	Definition	Coverage ³	IB Services ⁴
Buy	Stock price expected to rise within three months from the time the rating was assigned because of a specific catalyst or event.	<1%	<1%
Sell	Stock price expected to fall within three months from the time the rating was assigned because of a specific catalyst or event.	<1%	<1%

Source: UBS. Rating allocations are as of 31 March 2023.

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AES Corp ¹⁶	AES.N	Buy	US\$21.71	08 May 2023
Alliant Energy Corp ¹⁶	LNT.O	Neutral	US\$54.76	08 May 2023
Ameren Corp ¹⁶	AEE.N	Neutral	US\$89.14	08 May 2023
American Electric Power Inc ^{16,7,6b}	AE.P	Buy	US\$92.14	08 May 2023
CMS Energy Corp ¹⁶	CMS.N	Neutral	US\$61.19	08 May 2023
CenterPoint Energy Inc ¹⁶	CNP.N	Buy	US\$30.25	08 May 2023
Consolidated Edison Inc ¹⁶	ED.N	Neutral	US\$99.01	08 May 2023
DTE Energy Co ¹⁶	DTE.N	Neutral	US\$113.00	08 May 2023
Dominion Energy Inc ^{16,7,6b}	D.N	Neutral	US\$56.50	08 May 2023
Duke Energy Corp ^{16,7,6b,6c}	DUK.N	Neutral	US\$98.90	08 May 2023
Edison International ¹⁶	EIX.N	Buy	US\$73.39	08 May 2023
Emera Inc	EMA.TO	Buy	C\$58.95	08 May 2023
Entergy Corp ^{16,7,6b,6c}	ETR.N	Neutral	US\$106.91	08 May 2023
Eversource Energy ¹⁶	EVRG.O	Neutral	US\$62.05	08 May 2023
Eversource Energy ^{16,7,6b}	ES.N	Neutral	US\$76.75	08 May 2023
Exelon Corp ^{16,7,6b,6c}	EXC.O	Buy	US\$42.77	08 May 2023
FirstEnergy Corp ¹⁶	FE.N	Buy	US\$39.09	08 May 2023
Fortis Inc ¹⁶	FTS.TO	Sell	C\$61.27	08 May 2023
NextEra Energy Inc ^{2,4,5,16,7,6a}	NEE.N	Buy	US\$76.06	08 May 2023
NiSource Inc. ¹⁶	NI.N	Neutral	US\$28.45	08 May 2023
OGE Energy Corp ¹⁶	OGE.N	Neutral	US\$37.55	08 May 2023
PG&E Corp ^{16,7,6b,6c}	PCG.N	Neutral	US\$17.41	08 May 2023
PPL Corp ¹⁶	PPL.N	Buy	US\$28.59	08 May 2023
Pinnacle West Capital Corp ^{16,7,6b}	PNW.N	Sell	US\$79.82	08 May 2023
Public Service Enterprise Group ^{16,7,6b}	PEG.N	Buy	US\$63.49	08 May 2023
Sempra ¹⁶	SRE.N	Buy	US\$154.93	08 May 2023
Southern Co ^{13,16}	SO.N	Buy	US\$74.57	08 May 2023

Company Name	Reuters	12-month rating	Price	Price date
WEC Energy Group Inc ¹⁶	WEC.N	Neutral	US\$95.03	08 May 2023
Xcel Energy Inc ¹⁶	XEL.O	Neutral	US\$69.32	08 May 2023

Source: UBS. All prices as of local market close. Ratings in this table are the most current published ratings prior to this report. They may be more recent than the stock pricing date.

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Key Takeaways

- We are updating our 2024 outlook on the investor-owned North American regulated utility industry to negative.
- Given the relatively high percentage of companies with negative outlooks, we expect that 2024 will likely be the fifth consecutive year that downgrades outpace upgrades.
- The industry faces rising physical risks and high cash flow deficits that may not be sufficiently funded in a credit-supportive manner.
- Still, we expect that the utility industry will maintain a median investment-grade rating of 'BBB+'.
- We also expect that a smaller percentage of companies rated 'BBB' or lower are more likely to implement measures to maintain or even improve credit quality.

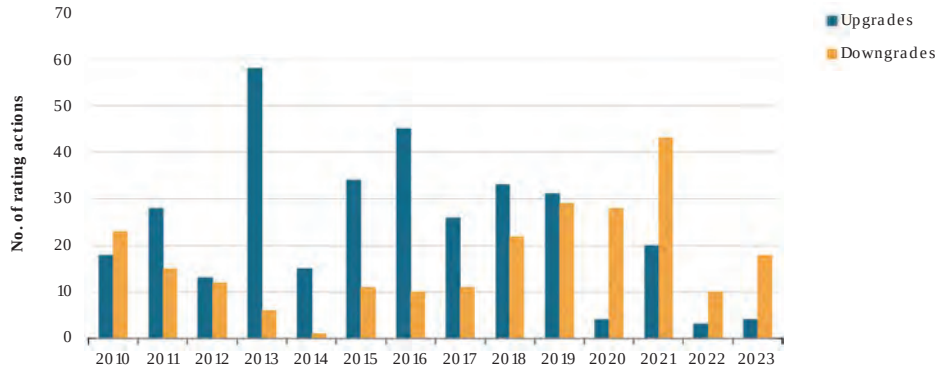
Credit quality for North American investor-owned regulated utilities has weakened over the past four years, with downgrades outpacing upgrades by more than three times. We expect downgrades to again surpass upgrades in 2024 for the fifth consecutive year. In the decade prior to 2020, upgrades generally outpaced downgrades in the industry.

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Chart 1

Upgrades and downgrades for North American regulated utilities



Source: S&P Global Ratings.

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High Percentage Of Negative Outlooks

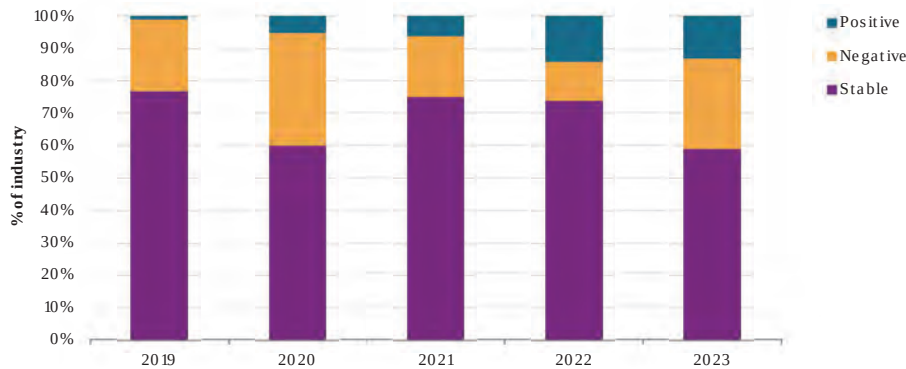
Currently, about 28% of the industry has a negative outlook or is listed on CreditWatch with negative implications. This is now the third time in the past five years that the year-end percentage of negative outlooks and CreditWatch listings has exceeded 20%. Given the current high percentage of negative outlooks it is increasingly likely that credit quality will again weaken in 2024.

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Chart 2

Outlooks for the North American regulated utilities industry
At year end.



Source: S&P Global Ratings.

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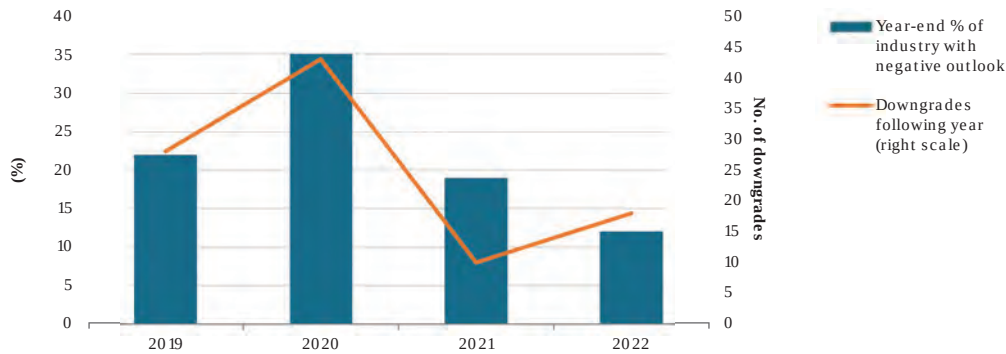
Future rating actions are typically correlated with our outlooks. The industry's share of negative outlooks reached a record high of 35% at year-end 2020, and the following year saw a record 43 downgrades. The industry's current percentage of negative outlooks is significantly larger than it was at year-ends 2021 and 2022, when downgrades still materially outpaced upgrades the following year. As such, given the current high percentage of negative outlooks, we anticipate that 2024 will be another challenging year for the industry's credit quality.

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Chart 3

North American regulated utilities' correlation of negative outlooks to downgrades



Source: S&P Global Ratings.

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Median Credit Rating To Remain Investment Grade

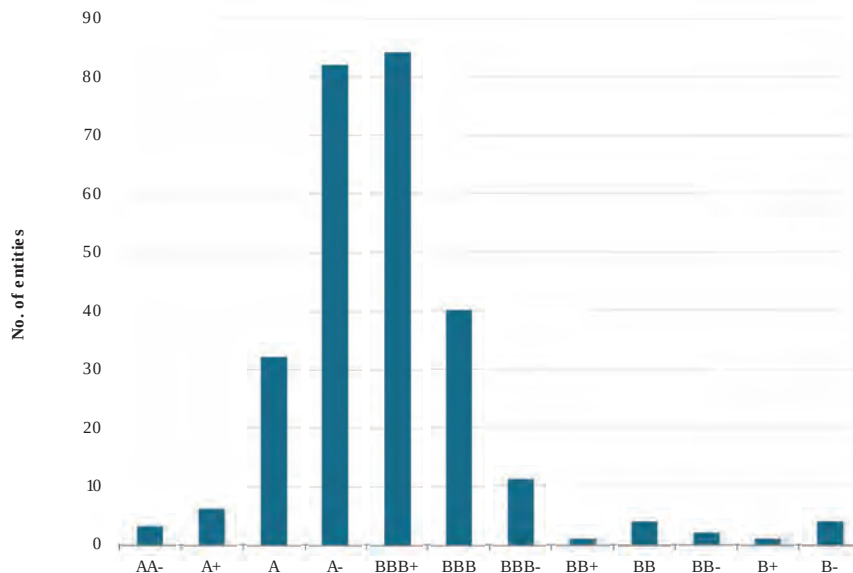
The median rating among North American investor-owned regulated utilities is 'BBB+'. Despite our expectations for downgrades to again outpace upgrades in 2024, we expect that the median rating will remain 'BBB+'. To weaken the median rating to 'BBB', the industry would need about 70 downgrades to 'BBB' from the 'BBB+' level or above. This degree of credit weakening is well above our base-case expectations for 2024. However, this magnitude of weakening could occur over the next three years if this negative pace persists.

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Chart 4

North American regulated utilities ratings distribution
As of Feb. 1, 2024.



Source: S&P Global Ratings.

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Headwinds To Credit Quality

The industrywide negative outlook reflects rising physical risks as well as financial measures, which are weakening due to rising capital spending and cash flow deficits that are not funded in a sufficiently credit supportive manner. Furthermore, much of the industry operates with minimal financial cushion from their downgrade threshold. This increases the susceptibility to a downgrade if negative events occur beyond our base case.

Increase in physical risk

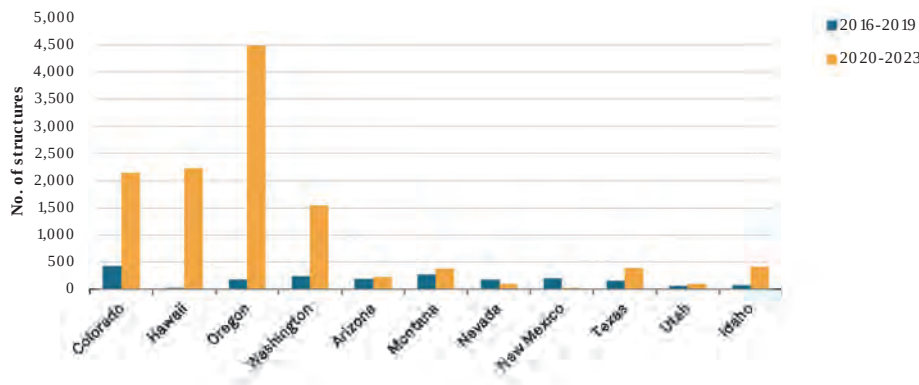
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Climate change and an increase in wildfire risks are threatening credit quality. Wildfire risk was generally limited to California utilities just five years ago but has spread over the past several years.

Chart 5

Structures destroyed by wildfires in Western U.S. states
Excludes California



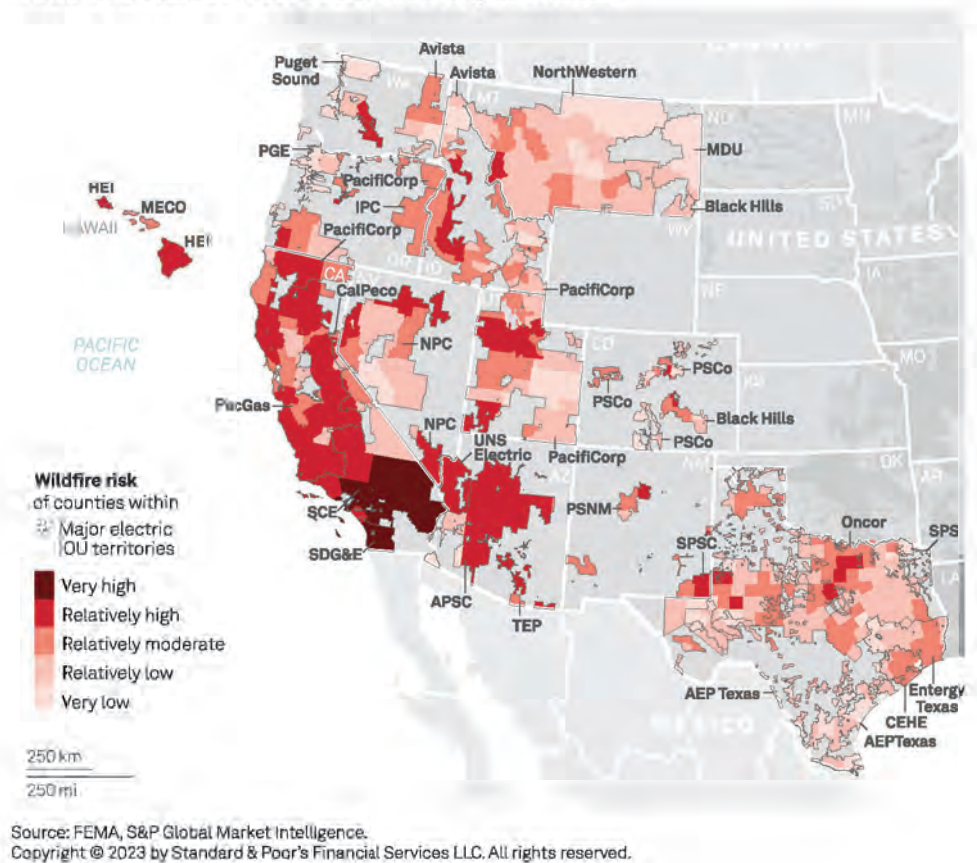
Sources: Headwaters Economics; National Fire and Aviation Management (FAMWeb).
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Since 2020, the number of structures destroyed by wildfires in Colorado, Hawaii, Idaho, Oregon, Washington, and Texas have all increased by more than 100% compared to 2016-2019. Meanwhile, Arizona, Montana, and Utah have each experienced increases of at least 20% over the same timeframe. Additionally, areas designated as high fire risk continue to increase across the Western U.S. due to climate change. To reduce these risks, many utilities are actively implementing mitigation plans designed to reduce wildfire exposure and litigation risks.

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Wildfire risk across West Coast electricity territories



Increase in capital expenditure and cash flow deficits

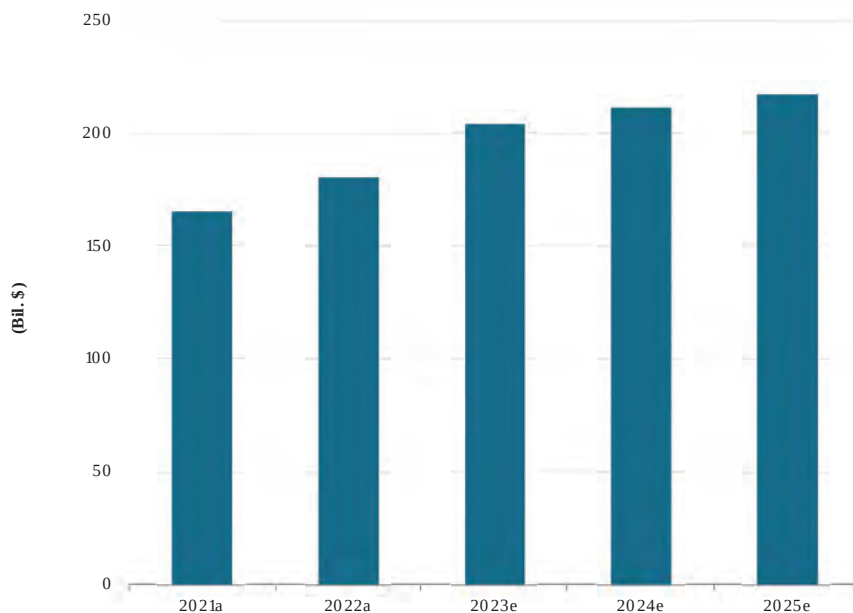
The industry's capital spending remains at record levels, supporting initiatives for safety, reliability, energy transition, and growth. We consider these trends long term and expect that capital spending will only continue to increase over this decade.

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Chart 6

North American regulated utilities' capital expenditure is rising



a--Actual, e--Estimate. Source: S&P Global Ratings.

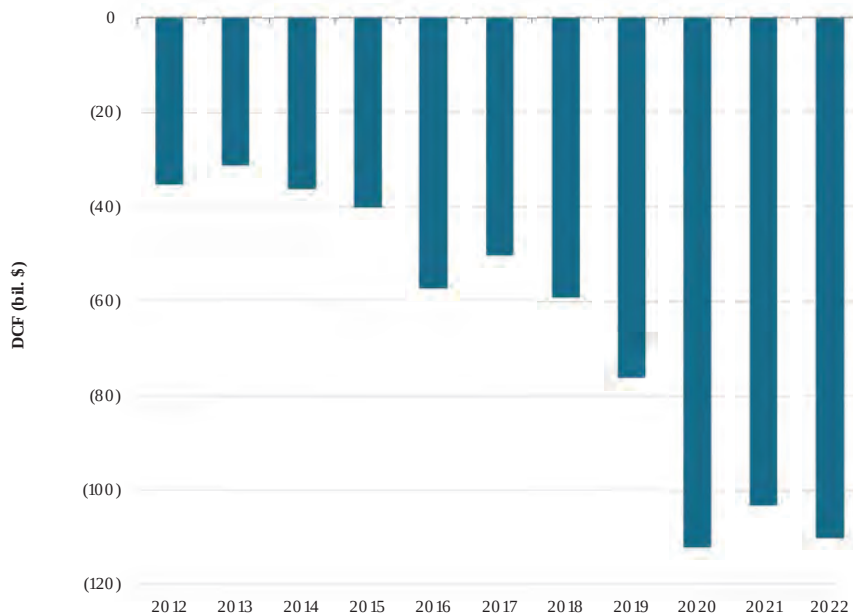
Accordingly, cash flow deficits have increased, pressuring the industry's credit quality. For 2024, our base case assumes that the industry will fund its approximate \$85 billion of cash flow deficits with about \$40 billion in asset sales and equity issuance.

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Chart 7

Discretionary cash flow (DCF) of rated investor-owned utilities



Source: S&P Global Ratings.

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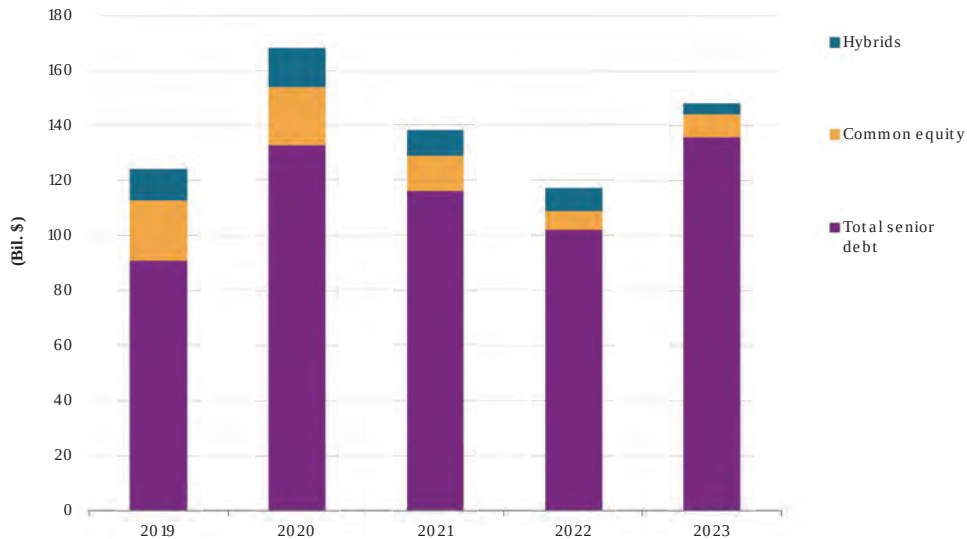
For 2023, the industry's actual equity issuance was considerably below our expectations, resulting in a weakening of financial performance and credit quality. If this trend persists, credit quality will again likely experience pressure in 2024.

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Chart 8

Capital market issuance for North American regulated utilities



Senior debt includes first-mortgage bonds and senior unsecured. Hybrids includes junior subordinated debt, preferreds, subordinated debt, and equity units. Source: S&P Global Ratings, S&P Market Intelligence.
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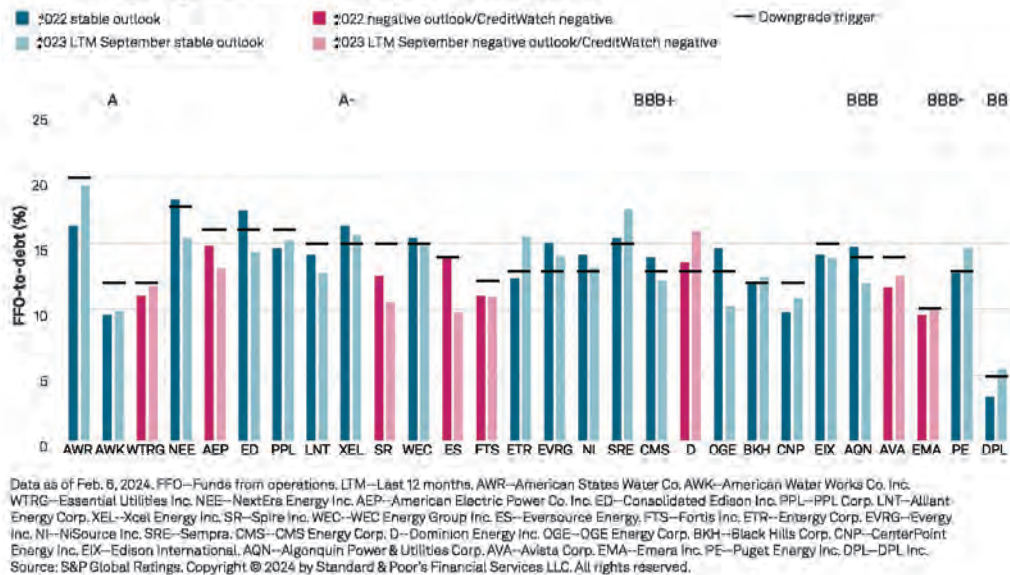
Strained financial cushion

About 35% of the industry is sustaining performance with minimal financial cushion, reflecting funds from operations (FFO) to debt that is less than 100 basis points (bps) above their downgrade threshold. The limited financial cushion affects a company's ability to absorb unexpected events beyond the base case for our ratings, increasing its susceptibility to a downgrade. Such unexpected events include higher interest rates, changes to inflation, delays to offshore wind projects, and rising taxes.

4/18/24, 10:23 AM

Rising Risks: Outlook For North American Investor-Owned Regulated Utilities Weakens | S&P Global Ratings

North American regulated utilities with minimal financial cushion



Upcoming debt maturities amid higher interest rates

The industry has considerable near-term debt maturities that must be refinanced, as well as rising discretionary cash flow deficits that are mostly funded with debt. Because of the regulatory lag, which is the timing difference between when a utility incurs costs and when it's recovered from ratepayers, rising interest rates weaken financial performance. S&P Global economists expect the federal funds rate will stabilize in 2024 and then begin to modestly decrease. Accordingly, as interest rates stabilize, it will ease pressure on the industry's financial performance.

Additionally, the spread between the 10-year treasury and the average authorized return on equity (ROE) has narrowed. Over the past three years, the 10-year treasury has increased by about 250 bps to about 4.0% from about 1.5% at year-end 2020. At the same time, average authorized ROE has essentially remained flat at about 9.5%. The narrowing of this spread directly hinders the industry's financial performance.

Elevated inflation rates

Although the rate of inflation has slowed from 2022 levels, it remains elevated relative to historical levels. We anticipate this will result in higher operations and maintenance (O&M) costs that could weaken financial performance. While some utilities have interim mechanisms that reduce the regulatory lag, most will have to file rate cases on a more frequent basis if inflation remains higher over the longer term.

Delayed renewable energy projects

Recently, several large offshore wind projects were delayed or canceled because of rising costs for these more challenging projects. For example, we recently placed Eversource Energy's ratings on CreditWatch with negative implications directly related to its share of higher costs associated with its offshore wind projects.

Alternative minimum tax (AMT)

The Inflation Reduction Act of 2022 includes a 15% corporate AMT that we expect will weaken the financial measures of only about 10% of the industry. This is because the ATM is applicable to corporations with at least \$1 billion of income that also do not have sufficient offsetting tax credits. Accordingly, we expect that most fully integrated large utilities with a growing or significant renewable generation portfolio will use their renewable tax credits to minimize or eliminate the AMT. However, the AMT could weaken financial measures of large electric transmission and distribution utilities, large natural gas local distribution companies, and large water utilities.

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Lower-Rated Companies Will Likely Protect Credit Quality

We expect a majority of the industry's future downgrades will come from companies that are currently rated 'BBB+' or higher, as about 30% of companies in this category have a negative outlook. Overall, these higher-rated companies account for about 75% of the industry's portfolio. Conversely, we expect companies rated 'BBB' or lower will likely take measures to support or improve credit quality. This reflects the more than 30% of companies in this category that have a positive outlook.

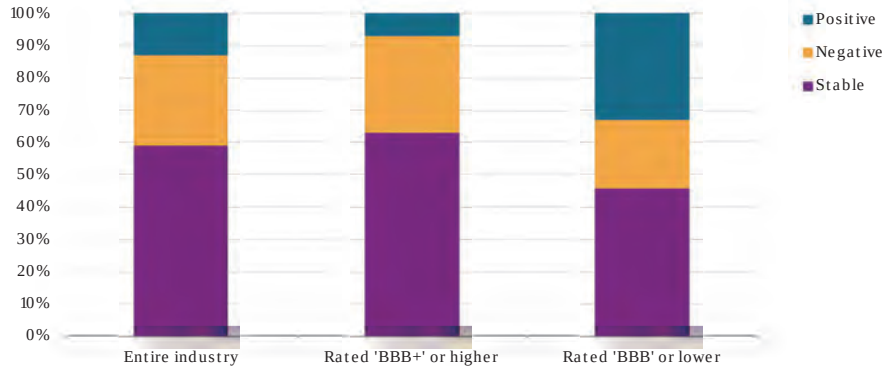
Consequently, there is a broad industry trend that is bifurcating higher-rated and lower-rated companies that will likely result in weakening credit quality for the higher-rated companies and stable to improving credit quality for the smaller percentage of lower-rated companies. We believe this trend is consistent with the industry's current economic conditions of robust growth, cash flow deficits, and higher interest rates. Some higher-rated companies are determining that, under current conditions, they have excess credit capacity while lower-rated companies believe it is most optimal for them to operate at a higher rating.

4/18/24, 10:23 AM

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Chart 9

North American regulated utilities outlook at year-end 2023



Source: S&P Global Ratings.

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This report does not constitute a rating action.

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STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of)
CONSUMERS ENERGY COMPANY)
for authority to increase its rates for the)
distribution of natural gas and for other relief.)
_____)

Case No. U-21806

EXHIBITS
OF
ANN BULKLEY
ON BEHALF OF
CONSUMERS ENERGY COMPANY

December 2024

**COST OF EQUITY ANALYSES
SUMMARY OF RESULTS**

Constant Growth DCF

	Minimum Growth Rate	Average Growth Rate	Maximum Growth Rate
Mean Results:			
30-Day Avg. Stock Price	8.59%	9.87%	11.30%
90-Day Avg. Stock Price	8.79%	10.06%	11.50%
180-Day Avg. Stock Price	8.95%	10.23%	11.66%
Average	8.78%	10.05%	11.49%
Median Results:			
30-Day Avg. Stock Price	8.48%	9.83%	11.33%
90-Day Avg. Stock Price	8.72%	10.05%	11.57%
180-Day Avg. Stock Price	8.86%	10.17%	11.71%
Average	8.69%	10.02%	11.54%

CAPM / ECAPM / Bond Yield Risk Premium

	30-Year Treasury Bond Yield		
	Current 30-Day Avg	Near-Term Projected	Longer-Term Projected
CAPM:			
Current <i>Value Line</i> Beta	11.05%	11.04%	11.07%
Current Bloomberg Beta	10.15%	10.13%	10.20%
Long-term Avg. <i>Value Line</i> Beta	10.08%	10.06%	10.13%
ECAPM:			
Current <i>Value Line</i> Beta	11.30%	11.29%	11.32%
Current Bloomberg Beta	10.62%	10.61%	10.66%
Long-term Avg. <i>Value Line</i> Beta	10.57%	10.56%	10.61%
Bond Yield Risk Premium	10.22%	10.19%	10.35%

PROXY GROUP SCREENING DATA AND RESULTS

[1]		[2]	[3]	[4]	[5]	[6]	[7]
Company	Ticker	Dividends	S&P Credit Rating Between BBB- and AAA	Covered by More Than 1 Analyst	Positive Growth Rates from at least two sources (Value Line, Yahoo! First Call, and Zacks)	% Regulated Natural Gas Operating Income > 60%	Announced Merger
Atmos Energy Corporation	ATO	Yes	A-	Yes	Yes	66.30%	No
NiSource Inc.	NI	Yes	BBB+	Yes	Yes	67.83%	No
Northwest Natural Gas Company	NWN	Yes	A	Yes	Yes	90.55%	No
ONE Gas, Inc.	OGS	Yes	A-	Yes	Yes	100.00%	No
Southwest Gas Corporation	SWX	Yes	BBB-	Yes	Yes	86.75%	No
Spire, Inc.	SR	Yes	BBB+	Yes	Yes	100.00%	No

Notes:

- [1] Bloomberg Professional
- [2] Bloomberg Professional
- [3] Yahoo! Finance and Zacks
- [4] Yahoo! Finance, Value Line Investment Survey, and Zacks
- [5] Form 10-K's for 2023, 2022, and 2021
- [6] Form 10-K's for 2023, 2022, and 2021
- [7] S&P Capital IQ Pro Financial News Releases

30-DAY CONSTANT GROWTH DCF

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
	Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Value Line Projected EPS Growth Rate	Yahoo! Finance Projected EPS Growth Rate	Zacks Projected EPS Growth Rate	Average Projected EPS Growth Rate	Cost of Equity: Minimum Growth Rate	Cost of Equity: Mean Growth Rate	Cost of Equity: Maximum Growth Rate
Atmos Energy Corporation	ATO	\$133.50	2.41%	2.50%	7.00%	7.40%	7.00%	7.13%	9.50%	9.63%	9.90%
NIsource Inc.	NI	\$33.46	3.17%	3.30%	9.50%	7.70%	7.00%	8.07%	10.28%	11.36%	12.82%
Northwest Natural Gas Company	NWN	\$39.87	4.89%	5.00%	6.50%	2.80%	n/a	4.65%	7.76%	9.65%	11.55%
ONE Gas, Inc.	OGS	\$70.80	3.73%	3.81%	3.50%	5.00%	5.00%	4.50%	7.29%	8.31%	8.82%
Southwest Gas Corporation	SWX	\$72.18	3.44%	3.55%	10.00%	4.00%	6.00%	6.67%	7.50%	10.22%	13.61%
Spire, Inc.	SR	\$65.59	4.60%	4.73%	4.50%	6.36%	5.00%	5.29%	9.21%	10.01%	11.11%
Mean	\$2.40	\$69.23	3.71%	3.81%	6.83%	5.54%	6.00%	6.05%	8.59%	9.87%	11.30%
Median	\$2.56	\$68.20	3.58%	3.68%	6.75%	5.68%	6.00%	5.98%	8.48%	9.83%	11.33%

Notes:

- [1] Bloomberg Professional as of September 30, 2024
- [2] Bloomberg Professional 30-day average as of September 30, 2024
- [3] Equals [1]/[2]
- [4] Equals [3] x (1 + 0.5 x [8])
- [5] Value Line
- [6] Yahoo! Finance
- [7] Zacks
- [8] Equals average of [5], [6], [7]
- [9] Equals [3] x (1 + 0.5 x (min([5], [6], [7])) + (min([5], [6], [7])
- [10] Equals [4] + [8]
- [11] Equals [3] x (1 + 0.5 x (max([5], [6], [7])) + (max([5], [6], [7])

90-DAY CONSTANT GROWTH DCF

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Company	Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Value Line Projected EPS Growth Rate	Yahoo! Finance Projected EPS Growth Rate	Zacks Projected EPS Growth Rate	Average Projected EPS Growth Rate	Cost of Equity: Minimum Growth Rate	Cost of Equity: Mean Growth Rate	Cost of Equity: Maximum Growth Rate
Atmos Energy Corporation	3.22	\$124.16	2.59%	2.69%	7.00%	7.40%	7.00%	7.13%	9.68%	9.82%	10.09%
NiSource Inc.	1.06	\$30.78	3.44%	3.58%	9.50%	7.70%	7.00%	8.07%	10.56%	11.65%	13.11%
Northwest Natural Gas Company	1.95	\$37.96	5.14%	5.26%	6.50%	2.80%	n/a	4.65%	8.01%	9.91%	11.80%
ONE Gas, Inc.	2.64	\$66.14	3.99%	4.08%	3.50%	5.00%	5.00%	4.50%	7.56%	8.58%	9.09%
Southwest Gas Corporation	2.48	\$72.50	3.42%	3.53%	10.00%	4.00%	6.00%	6.67%	7.49%	10.20%	13.59%
Spire, Inc.	3.02	\$62.70	4.82%	4.94%	4.50%	6.36%	5.00%	5.29%	9.42%	10.23%	11.33%
Mean	\$2.40	\$65.71	3.90%	4.01%	6.83%	5.54%	6.00%	6.05%	8.79%	10.06%	11.50%
Median	\$2.56	\$64.42	3.72%	3.83%	6.75%	5.68%	6.00%	5.98%	8.72%	10.05%	11.57%

Notes:

- [1] Bloomberg Professional as of September 30, 2024
- [2] Bloomberg Professional 90-day average as of September 30, 2024
- [3] Equals [1]/[2]
- [4] Equals [3] x (1 + 0.5 x [8])
- [5] Value Line
- [6] Yahoo! Finance
- [7] Zacks
- [8] Equals average of [5], [6], [7]
- [9] Equals [3] x (1 + 0.5 x (min([5], [6], [7])) + (min([5], [6], [7]))
- [10] Equals [4] + [8]
- [11] Equals [3] x (1 + 0.5 x (max([5], [6], [7])) + (max([5], [6], [7]))

180-DAY CONSTANT GROWTH DCF

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
	Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Value Line Projected EPS Growth Rate	Yahoo! Finance Projected EPS Growth Rate	Zacks Projected EPS Growth Rate	Average Projected EPS Growth Rate	Cost of Equity: Minimum Growth Rate	Cost of Equity: Mean Growth Rate	Cost of Equity: Maximum Growth Rate
Atmos Energy Corporation	ATO	\$118.94	2.71%	2.80%	7.00%	7.40%	7.00%	7.13%	9.80%	9.94%	10.21%
NiSource Inc.	NI	\$28.63	3.70%	3.85%	9.50%	7.70%	7.00%	8.07%	10.83%	11.92%	13.38%
Northwest Natural Gas Company	NWN	\$37.19	5.24%	5.36%	6.50%	2.80%	n/a	4.65%	8.12%	10.01%	11.91%
ONE Gas, Inc.	OGS	\$63.46	4.16%	4.25%	3.50%	5.00%	5.00%	4.50%	7.73%	8.75%	9.26%
Southwest Gas Corporation	SWX	\$70.20	3.53%	3.65%	10.00%	4.00%	6.00%	6.67%	7.60%	10.32%	13.71%
Spire, Inc.	SR	\$60.50	4.99%	5.12%	4.50%	6.36%	5.00%	5.29%	9.60%	10.41%	11.51%
Mean	\$2.40	\$63.15	4.06%	4.17%	6.83%	5.54%	6.00%	6.05%	8.95%	10.23%	11.66%
Median	\$2.56	\$61.98	3.93%	4.05%	6.75%	5.68%	6.00%	5.98%	8.86%	10.17%	11.71%

Notes:

- [1] Bloomberg Professional as of September 30, 2024
- [2] Bloomberg Professional 180-day average as of September 30, 2024
- [3] Equals [1]/[2]
- [4] Equals [3] x (1 + 0.5 x [8])
- [5] Value Line
- [6] Yahoo! Finance
- [7] Zacks
- [8] Equals average of [5], [6], [7]
- [9] Equals [3] x (1 + 0.5 x (min([5], [6], [7])) + (min([5], [6], [7])
- [10] Equals [4] + [8]
- [11] Equals [3] x (1 + 0.5 x (max([5], [6], [7])) + (max([5], [6], [7])

CAPITAL ASSET PRICING MODEL
CURRENT RISK FREE RATE AND VALUE LINE BETA

$$K = R_f + \beta (R_m - R_f)$$
$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
Company	Ticker	Current 30-day average of 30-year U.S. Treasury bond yield	Beta	Market Return	Market Risk Premium	Cost of Equity: CAPM	Cost of Equity: ECAPM
Atmos Energy Corporation	ATO	4.07%	0.85	12.04%	7.97%	10.85%	11.15%
NiSource Inc.	NI	4.07%	0.95	12.04%	7.97%	11.64%	11.74%
Northwest Natural Gas Company	NWN	4.07%	0.85	12.04%	7.97%	10.85%	11.15%
ONE Gas, Inc.	OGS	4.07%	0.85	12.04%	7.97%	10.85%	11.15%
Southwest Gas Corporation	SWX	4.07%	0.90	12.04%	7.97%	11.25%	11.44%
Spire, Inc.	SR	4.07%	0.85	12.04%	7.97%	10.85%	11.15%
Mean						11.05%	11.30%
Median						10.85%	11.15%

Notes:

- [1] Bloomberg Professional 30-day average as of September 30, 2024
- [2] Value Line
- [3] Market Return
- [4] Equals [3]-[1]
- [5] Equals [1] + [2] x [4]
- [6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL
NEAR TERM PROJECTED RISK-FREE RATE AND VALUE LINE BETA

$$K = R_f + \beta (R_m - R_f)$$
$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
Company	Ticker	Near-term projected 30-year U.S. Treasury bond yield (Q1 2025 - Q1 2026)	Beta	Market Return	Market Risk Premium	Cost of Equity: CAPM	Cost of Equity: ECAPM
Atmos Energy Corporation	ATO	4.02%	0.85	12.04%	8.02%	10.84%	11.14%
NiSource Inc.	NI	4.02%	0.95	12.04%	8.02%	11.64%	11.74%
Northwest Natural Gas Company	NWN	4.02%	0.85	12.04%	8.02%	10.84%	11.14%
ONE Gas, Inc.	OGS	4.02%	0.85	12.04%	8.02%	10.84%	11.14%
Southwest Gas Corporation	SWX	4.02%	0.90	12.04%	8.02%	11.24%	11.44%
Spire, Inc.	SR	4.02%	0.85	12.04%	8.02%	10.84%	11.14%
Mean						11.04%	11.29%
Median						10.84%	11.14%

Notes:

[1] Blue Chip Financial Forecasts, Vol. 43, No. 10, October 1, 2024, at 2

[2] Value Line

[3] Market Return

[4] Equals [3]-[1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL
LONG-TERM PROJECTED RISK-FREE RATE AND VALUE LINE BETA

$$K = R_f + \beta (R_m - R_f)$$
$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
Company	Ticker	Projected 30-year U.S. Treasury bond yield (2026 - 2030)	Beta	Market Return	Market Risk Premium	Cost of Equity: CAPM	Cost of Equity: ECAPM
Atmos Energy Corporation	ATO	4.30%	0.85	12.04%	7.74%	10.88%	11.17%
NiSource Inc.	NI	4.30%	0.95	12.04%	7.74%	11.66%	11.75%
Northwest Natural Gas Company	NWN	4.30%	0.85	12.04%	7.74%	10.88%	11.17%
ONE Gas, Inc.	OGS	4.30%	0.85	12.04%	7.74%	10.88%	11.17%
Southwest Gas Corporation	SWX	4.30%	0.90	12.04%	7.74%	11.27%	11.46%
Spire, Inc.	SR	4.30%	0.85	12.04%	7.74%	10.88%	11.17%
Mean						11.07%	11.32%
Median						10.88%	11.17%

Notes:

[1] Blue Chip Financial Forecasts, Vol. 43, No. 6, May 31, 2024, at 14

[2] Value Line

[3] Market Return

[4] Equals [3]-[1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL
CURRENT RISK FREE RATE AND BLOOMBERG BETA

$$K = R_f + \beta (R_m - R_f)$$
$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
Company	Ticker	Current 30-day average of 30-year U.S. Treasury bond yield	Beta	Market Return	Market Risk Premium	Cost of Equity: CAPM	Cost of Equity: ECAPM
Atmos Energy Corporation	ATO	4.07%	0.74	12.04%	7.97%	9.98%	10.50%
NiSource Inc.	NI	4.07%	0.79	12.04%	7.97%	10.38%	10.79%
Northwest Natural Gas Company	NWN	4.07%	0.69	12.04%	7.97%	9.60%	10.21%
ONE Gas, Inc.	OGS	4.07%	0.76	12.04%	7.97%	10.16%	10.63%
Southwest Gas Corporation	SWX	4.07%	0.82	12.04%	7.97%	10.63%	10.98%
Spire, Inc.	SR	4.07%	0.76	12.04%	7.97%	10.12%	10.60%
Mean						10.15%	10.62%
Median						10.14%	10.62%

Notes:

[1] Bloomberg Professional 30-day average as of September 30, 2024

[2] Bloomberg Professional

[3] Market Return

[4] Equals [3]-[1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL
NEAR TERM PROJECTED RISK-FREE RATE AND BLOOMBERG BETA

$$K = R_f + \beta (R_m - R_f)$$
$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
Company	Ticker	Near-term projected 30-year U.S. Treasury bond yield (Q1 2025 - Q1 2026)	Beta	Market Return	Market Risk Premium	Cost of Equity: CAPM	Cost of Equity: ECAPM
Atmos Energy Corporation	ATO	4.02%	0.74	12.04%	8.02%	9.97%	10.49%
NiSource Inc.	NI	4.02%	0.79	12.04%	8.02%	10.37%	10.78%
Northwest Natural Gas Company	NWN	4.02%	0.69	12.04%	8.02%	9.58%	10.20%
ONE Gas, Inc.	OGS	4.02%	0.76	12.04%	8.02%	10.15%	10.62%
Southwest Gas Corporation	SWX	4.02%	0.82	12.04%	8.02%	10.62%	10.98%
Spire, Inc.	SR	4.02%	0.76	12.04%	8.02%	10.11%	10.59%
Mean						10.13%	10.61%
Median						10.13%	10.61%

Notes:

[1] Blue Chip Financial Forecasts, Vol. 43, No. 10, October 1, 2024, at 2

[2] Bloomberg Professional

[3] Market Return

[4] Equals [3]-[1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL
LONG-TERM PROJECTED RISK-FREE RATE AND BLOOMBERG BETA

$$K = R_f + \beta (R_m - R_f)$$
$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
Company	Ticker	Projected 30-year U.S. Treasury bond yield (2026 - 2030)	Beta	Market Return	Market Risk Premium	Cost of Equity: CAPM	Cost of Equity: ECAPM
Atmos Energy Corporation	ATO	4.30%	0.74	12.04%	7.74%	10.04%	10.54%
NiSource Inc.	NI	4.30%	0.79	12.04%	7.74%	10.42%	10.83%
Northwest Natural Gas Company	NWN	4.30%	0.69	12.04%	7.74%	9.67%	10.26%
ONE Gas, Inc.	OGS	4.30%	0.76	12.04%	7.74%	10.22%	10.67%
Southwest Gas Corporation	SWX	4.30%	0.82	12.04%	7.74%	10.67%	11.02%
Spire, Inc.	SR	4.30%	0.76	12.04%	7.74%	10.18%	10.64%
Mean						10.20%	10.66%
Median						10.20%	10.66%

Notes:

[1] Blue Chip Financial Forecasts, Vol. 43, No. 6, May 31, 2024, at 14

[2] Bloomberg Professional

[3] Market Return

[4] Equals [3]-[1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL
CURRENT RISK FREE RATE AND LONG-TERM VALUE LINE BETA

$$K = R_f + \beta (R_m - R_f)$$
$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
Company	Ticker	Current 30-day average of 30-year U.S. Treasury bond yield	Beta	Market Return	Market Risk Premium	Cost of Equity: CAPM	Cost of Equity: ECAPM
Atmos Energy Corporation	ATO	4.07%	0.75	12.04%	7.97%	10.05%	10.55%
NiSource Inc.	NI	4.07%	0.76	12.04%	7.97%	10.09%	10.58%
Northwest Natural Gas Company	NWN	4.07%	0.71	12.04%	7.97%	9.72%	10.30%
ONE Gas, Inc.	OGS	4.07%	0.74	12.04%	7.97%	9.95%	10.47%
Southwest Gas Corporation	SWX	4.07%	0.83	12.04%	7.97%	10.67%	11.01%
Spire, Inc.	SR	4.07%	0.74	12.04%	7.97%	9.98%	10.49%
Mean						10.08%	10.57%
Median						10.01%	10.52%

Notes:

- [1] Bloomberg Professional 30-day average as of September 30, 2024
- [2] Source: LT Beta
- [3] Market Return
- [4] Equals [3]-[1]
- [5] Equals [1] + [2] x [4]
- [6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL
NEAR-TERM PROJECTED RISK FREE RATE AND LONG-TERM VALUE LINE BETA

$$K = R_f + \beta (R_m - R_f)$$
$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
Company	Ticker	Near-term projected 30-year U.S. Treasury bond yield (Q1 2025 - Q1 2026)	Beta	Market Return	Market Risk Premium	Cost of Equity: CAPM	Cost of Equity: ECAPM
Atmos Energy Corporation	ATO	4.02%	0.75	12.04%	8.02%	10.04%	10.54%
NiSource Inc.	NI	4.02%	0.76	12.04%	8.02%	10.08%	10.57%
Northwest Natural Gas Company	NWN	4.02%	0.71	12.04%	8.02%	9.71%	10.29%
ONE Gas, Inc.	OGS	4.02%	0.74	12.04%	8.02%	9.94%	10.46%
Southwest Gas Corporation	SWX	4.02%	0.83	12.04%	8.02%	10.66%	11.00%
Spire, Inc.	SR	4.02%	0.74	12.04%	8.02%	9.96%	10.48%
Mean						10.06%	10.56%
Median						10.00%	10.51%

Notes:

[1] Blue Chip Financial Forecasts, Vol. 43, No. 10, October 1, 2024, at 2

[2] Source: LT Beta

[3] Market Return

[4] Equals [3]-[1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

CAPITAL ASSET PRICING MODEL
LONG-TERM PROJECTED RISK FREE RATE AND LONG-TERM VALUE LINE BETA

$$K = R_f + \beta (R_m - R_f)$$
$$K = R_f + 0.25 \times (R_m - R_f) + 0.75 \times \beta \times (R_m - R_f)$$

		[1]	[2]	[3]	[4]	[5]	[6]
Company	Ticker	Projected 30-year U.S. Treasury bond yield (2026 - 2030)	Beta	Market Return	Market Risk Premium	Cost of Equity: CAPM	Cost of Equity: ECAPM
Atmos Energy Corporation	ATO	4.30%	0.75	12.04%	7.74%	10.11%	10.59%
NiSource Inc.	NI	4.30%	0.76	12.04%	7.74%	10.15%	10.62%
Northwest Natural Gas Company	NWN	4.30%	0.71	12.04%	7.74%	9.79%	10.35%
ONE Gas, Inc.	OGS	4.30%	0.74	12.04%	7.74%	10.01%	10.52%
Southwest Gas Corporation	SWX	4.30%	0.83	12.04%	7.74%	10.71%	11.04%
Spire, Inc.	SR	4.30%	0.74	12.04%	7.74%	10.04%	10.54%
Mean						10.13%	10.61%
Median						10.07%	10.56%

Notes:

[1] Blue Chip Financial Forecasts, Vol. 43, No. 6, May 31, 2024, at 14

[2] Source: LT Beta

[3] Market Return

[4] Equals [3]-[1]

[5] Equals [1] + [2] x [4]

[6] Equals [1] + 0.25 x ([4]) + 0.75 x ([2] x [4])

HISTORICAL BETA

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Company	Ticker	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	Average
Atmos Energy Corporation	ATO	0.80	0.80	0.80	0.70	0.70	0.60	0.60	0.80	0.80	0.80	0.85	0.75
NiSource Inc.	NI	0.85	0.85	NMF	NMF	0.60	0.50	0.55	0.85	0.85	0.85	0.90	0.76
Northwest Natural Gas Company	NWN	0.65	0.70	0.65	0.65	0.70	0.60	0.60	0.80	0.85	0.80	0.80	0.71
ONE Gas, Inc.	OGS				0.70	0.70	0.65	0.65	0.80	0.80	0.80	0.80	0.74
Southwest Gas Corporation	SWX	0.80	0.85	0.80	0.75	0.80	0.70	0.70	0.95	0.95	0.90	0.90	0.83
Spire, Inc.	SR	0.65	0.70	0.70	0.70	0.70	0.65	0.65	0.85	0.85	0.85	0.85	0.74
Mean		0.75	0.78	0.74	0.70	0.70	0.62	0.63	0.84	0.85	0.83	0.85	0.75

Notes:

[1] Value Line, December 26, 2013
[2] Value Line, December 31, 2014
[3] Value Line, December 30, 2015
[4] Value Line, December 29, 2016
[5] Value Line, December 28, 2017
[6] Value Line, December 27, 2018
[7] Value Line, December 26, 2019
[8] Value Line, December 30, 2020
[9] Value Line, December 29, 2021
[10] Value Line, December 30, 2022
[11] Value Line, December 29, 2023
[11] Average ([1] - [11])

MARKET RISK PREMIUM DERIVED FROM S&P 500 INDEX

[1] Estimate of the S&P 500 Dividend Yield	1.52%
[2] Estimate of the S&P 500 Growth Rate	10.45%
[3] S&P 500 Estimated Required Market Return	12.04%

		[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Name	Ticker	Shares Outst'g	Price	Market Capitalization	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Bloomberg Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
LyondellBasell Industries NV	LYB	325,089	95.9	31,176.04		5.59%		-8.57%	
American Express Co	AXP	710,912	271.2	192,799.33	0.52%	1.03%	0.01%	15.62%	0.08%
Verizon Communications Inc	VZ	4209,52	44.91	189,049.54	0.51%	6.03%	0.03%	3.00%	0.02%
Broadcom Inc	AVGO	4670,576	172.5	805,674.36	2.17%	1.23%	0.03%	16.94%	0.37%
Boeing Co/The	BA	616,167	152.04	93,682.03				38.60%	
Solventum Corp	SOLV	172,711	69.72	12,041.41				-2.00%	
Caterpillar Inc	CAT	484,898	391.12	189,653.31	0.51%	1.44%	0.01%	8.38%	0.04%
JPMorgan Chase & Co	JPM	2845,165	210.86	599,931.49	1.62%	2.37%	0.04%	3.55%	0.06%
Chevron Corp	CVX	1828,917	147.27	269,344.61	0.73%	4.43%	0.03%	7.00%	0.05%
Coca-Cola Co/The	KO	4309,868	71.86	309,707.11	0.83%	2.70%	0.02%	6.36%	0.05%
AbbVie Inc	ABBV	1766,344	197.48	348,817.61	0.94%	3.14%	0.03%	8.80%	0.08%
Walt Disney Co/The	DIS	1813,587	96.19	174,448.93	0.47%	0.94%	0.00%	15.77%	0.07%
Corpay Inc	CPAY	69,433	312.76	21,715.87	0.06%			14.87%	0.01%
Extra Space Storage Inc	EXR	211,929	180.19	38,187.49		3.60%		-0.20%	
Exxon Mobil Corp	XOM	4442,827	117.22	520,788.18	1.40%	3.24%	0.05%	5.00%	0.07%
Phillips 66	PSX	418,569	131.45	55,020.90		3.50%		-9.00%	
General Electric Co	GE	1084,311	188.58	204,479.37		0.59%		29.30%	
HP Inc	HPQ	963,718	35.87	34,568.56	0.09%	3.07%	0.00%	1.05%	0.00%
Home Depot Inc/The	HD	993,293	405.2	402,482.32	1.08%	2.22%	0.02%	3.87%	0.04%
Monolithic Power Systems Inc	MPWR	48,752	924.5	45,071.22		0.54%			
International Business Machines Corp	IBM	921,148	221.08	203,647.40	0.55%	3.02%	0.02%	3.90%	0.02%
Johnson & Johnson	JNJ	2407,244	162.06	390,117.96	1.05%	3.06%	0.03%	3.73%	0.04%
Lululemon Athletica Inc	LULU	117,661	271.35	31,927.31	0.09%			7.00%	0.01%
McDonald's Corp	MCD	717,343	304.51	128,438.12	0.59%	2.33%	0.01%	5.15%	0.03%
Merck & Co Inc	MRK	2534,809	113.56	287,852.91		2.71%		53.04%	
3M Co	MMM	549,354	136.7	75,096.69		2.05%		-5.37%	
American Water Works Co Inc	AWK	194,863	146.24	28,496.77	0.08%	2.09%	0.00%	7.89%	0.01%
Bank of America Corp	BAC	7759,577	39.68	307,900.02		2.62%			
Pfizer Inc	PFE	5666,695	28.94	163,994.15	0.44%	5.81%	0.03%	6.39%	0.03%
Procter & Gamble Co/The	PG	2349,708	173.2	406,969.43	1.10%	2.32%	0.03%	7.37%	0.08%
AT&T Inc	T	7170,244	22	157,745.37	0.42%	5.05%	0.02%	1.84%	0.01%
Travelers Cos Inc/The	TRV	227,931	234.12	53,363.21	0.14%	1.79%	0.00%	18.11%	0.03%
RTX Corp	RTX	1330,239	121.16	161,171.76	0.43%	2.08%	0.01%	10.23%	0.04%
Analog Devices Inc	ADI	496,493	230.17	114,277.79		1.60%		-5.82%	
Walmart Inc	WMT	8038,251	80.75	649,088.77	1.75%	1.03%	0.02%	9.24%	0.16%
Cisco Systems Inc	CSCO	3990,735	53.22	212,386.92	0.57%	3.01%	0.02%	3.40%	0.02%
Intel Corp	INTC	4276	23.46	100,314.96	0.27%			4.26%	0.01%
General Motors Co	GM	1123,922	44.84	50,396.66	0.14%	1.07%	0.00%	11.02%	0.01%
Microsoft Corp	MSFT	7433,038	430.3	3,198,436.25	8.61%	0.77%	0.07%	16.10%	1.39%
Dollar General Corp	DG	219,915	84.57	18,598.21		2.79%		-7.74%	
Cigna Group/The	CI	279,549	346.44	96,846.96	0.26%	1.62%	0.00%	11.65%	0.03%
Kinder Morgan Inc	KMI	2219,463	22.09	49,027.94	0.13%	5.21%	0.01%	6.52%	0.01%
Citigroup Inc	C	1907,795	62.6	119,427.97		3.58%		27.26%	
American International Group Inc	AIG	643,951	73.23	47,156.53	0.13%	2.18%	0.00%	12.42%	0.02%
Altria Group Inc	MO	1706,224	51.04	87,085.67	0.23%	7.99%	0.02%	4.20%	0.01%
HCA Healthcare Inc	HCA	258,074	406.43	104,889.02	0.28%	0.65%	0.00%	10.81%	0.03%
International Paper Co	IP	347,379	48.85	16,969.46		3.79%		-2.00%	
Hewlett Packard Enterprise Co	HPE	1298,669	20.46	26,570.77	0.07%	2.54%	0.00%	2.42%	0.00%
Abbott Laboratories	ABT	1739,897	114.01	198,365.66	0.53%	1.93%	0.01%	8.12%	0.04%
Aflac Inc	AFL	560,026	111.8	62,610.91	0.17%	1.79%	0.00%	9.37%	0.02%
Air Products and Chemicals Inc	APD	222,315	295.9699	65,798.55	0.18%	2.39%	0.00%	9.52%	0.02%
Super Micro Computer Inc	SMCI	585,565	41.64	24,382.93				69.00%	
Royal Caribbean Cruises Ltd	RCL	257,42	177.36	45,656.01		0.90%		30.00%	
Hess Corp	HES	308,115	135.8	41,842.02	0.11%	1.47%	0.00%	16.00%	0.02%
Archer-Daniels-Midland Co	ADM	478,142	59.74	28,564.20		3.35%		-3.62%	
Automatic Data Processing Inc	ADP	407,826	276.73	112,857.69		2.02%			
Verisk Analytics Inc	VRSK	142,424	267.96	38,163.94	0.10%	0.58%	0.00%	13.00%	0.01%
AutoZone Inc	AZO	17,083	3150.04	53,812.13	0.14%			13.50%	0.02%
Linde PLC	LIN	477,503	476.86	227,702.08	0.61%	1.17%	0.01%	11.76%	0.07%
Avery Dennison Corp	AVY	80,519	220.76	17,775.37	0.05%	1.59%	0.00%	12.84%	0.01%
Enphase Energy Inc	ENPH	135,422	113.02	15,305.39	0.04%			7.45%	0.00%
MSCI Inc	MSCI	78.65	582.93	45,847.44	0.12%	1.10%	0.00%	12.00%	0.01%
Ball Corp	BALL	303,565	67.91	20,615.10	0.06%	1.18%	0.00%	13.35%	0.01%
Axon Enterprise Inc	AXON	75,574	399.6	30,199.37				20.81%	
Dayforce Inc	DAY	158.1	61.25	9,683.63					
Carrier Global Corp	CARR	902,752	80.49	72,662.51	0.20%	0.94%	0.00%	6.74%	0.01%
Bank of New York Mellon Corp/The	BK	737,957	71.86	53,029.59	0.14%	2.62%	0.00%	10.55%	0.02%
Otis Worldwide Corp	OTIS	400,555	103.94	41,633.69	0.11%	1.50%	0.00%	10.00%	0.01%
Baxter International Inc	BAX	510,178	37.97	19,371.46	0.05%	3.06%	0.00%	3.50%	0.00%
Becton Dickinson & Co	BDX	289,042	241.1	69,688.03	0.19%	1.58%	0.00%	8.34%	0.02%
Berkshire Hathaway Inc	BRK/B	1325,193	460.26	609,933.33					
Best Buy Co Inc	BBY	214,725	103.3	22,181.09	0.06%	3.64%	0.00%	4.17%	0.00%
Boston Scientific Corp	BSX	1472,626	83.8	123,406.06	0.33%			12.58%	0.04%
Bristol-Myers Squibb Co	BMJ	2027,395	51.74	104,897.42		4.64%		-2.61%	
Brown-Forman Corp	BF/B	303,537	49.2	14,934.02		1.77%		-2.38%	
Coterra Energy Inc	CTRA	739,274	23.95	17,705.61	0.05%	3.51%	0.00%	10.06%	0.00%
Hilton Worldwide Holdings Inc	HLT	246,427	230.5	56,801.42	0.15%	0.26%	0.00%	14.97%	0.02%
Carnival Corp	CCL	1154,165	18.48	21,328.97					
Qorvo Inc	QRVO	94,861	103.3	9,799.14	0.03%			17.09%	0.00%
Builders FirstSource Inc	BLDR	116,454	193.86	22,575.77	0.06%			1.45%	0.00%
UDR Inc	UDR	329,824	45.34	14,954.22	0.04%	3.75%	0.00%	1.85%	0.00%
Clorox Co/The	CLX	123,862	162.91	20,178.36	0.05%	3.00%	0.00%	11.33%	0.01%
Paycom Software Inc	PAYC	57,432	166.57	9,566.45	0.03%	0.90%	0.00%	9.41%	0.00%

		[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Name	Ticker	Shares Outst'g	Price	Market Capitalization	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Bloomberg Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
CMS Energy Corp	CMS	298.635	70.63	21,092.59	0.06%	2.92%	0.00%	7.28%	0.00%
Colgate-Palmolive Co	CL	817.087	103.81	84,821.80	0.23%	1.93%	0.00%	8.73%	0.02%
EPAM Systems Inc	EPAM	56.935	199.03	11,331.77	0.03%			5.29%	0.00%
Conagra Brands Inc	CAG	479.05	32.52	15,578.71	0.04%	4.31%	0.00%	1.81%	0.00%
Airbnb Inc	ABNB	440.002	126.81	55,796.65	0.15%			19.84%	0.03%
Consolidated Edison Inc	ED	346.147	104.13	36,044.29	0.10%	3.19%	0.00%	5.58%	0.01%
Corning Inc	GLW	855.701	45.15	38,634.90	0.10%	2.48%	0.00%	13.57%	0.01%
GoDaddy Inc	GDDY	140.973	156.78	22,101.75					
Cummins Inc	CMI	137.048	323.79	44,374.77	0.12%	2.25%	0.00%	8.28%	0.01%
Caesars Entertainment Inc	CZR	216.338	41.74	9,029.95				-28.25%	
Danaher Corp	DHR	722.213	278.02	200,789.66	0.54%	0.39%	0.00%	1.89%	0.01%
Target Corp	TGT	460.675	155.86	71,800.81	0.19%	2.87%	0.01%	14.38%	0.03%
Deere & Co	DE	273.6	417.33	114,181.49		1.41%		-9.99%	
Dominion Energy Inc	D	838.938	57.79	48,482.23		4.62%		21.64%	
Dover Corp	DOV	137.458	191.74	26,356.20	0.07%	1.07%	0.00%	7.72%	0.01%
Alliant Energy Corp	LNT	256.5	60.69	15,566.99	0.04%	3.16%	0.00%	7.34%	0.00%
Steel Dynamics Inc	STLD	154.303	126.08	19,454.52		1.46%		-4.43%	
Duke Energy Corp	DUK	771	115.3	88,896.30	0.24%	3.63%	0.01%	6.78%	0.02%
Regency Centers Corp	REG	181.497	72.23	13,109.53	0.04%	3.71%	0.00%	3.79%	0.00%
Eaton Corp PLC	ETN	398.1	331.44	131,946.26	0.36%	1.13%	0.00%	14.60%	0.05%
Ecolab Inc	ECL	284.538	255.33	72,651.09	0.20%	0.89%	0.00%	15.76%	0.03%
Revvity Inc	RVTY	123.337	127.75	15,756.30	0.04%	0.22%	0.00%	9.44%	0.00%
Dell Technologies Inc	DELL	333.874	118.54	39,577.42	0.11%	1.50%	0.00%	9.83%	0.01%
Emerson Electric Co	EMR	572.7	109.37	62,636.20	0.17%	1.92%	0.00%	15.10%	0.03%
EOG Resources Inc	EOG	568.6	122.93	69,898.00	0.19%	2.96%	0.01%	3.28%	0.01%
Aon PLC	AON	217.242	345.99	75,163.56	0.20%	0.78%	0.00%	11.10%	0.02%
Entergy Corp	ETR	213.831	131.61	28,142.30	0.08%	3.43%	0.00%	7.17%	0.01%
Equifax Inc	EFX	123.736	293.86	36,361.06		0.53%			
EQT Corp	EQT	594.021	36.64	21,764.93		1.72%			
IQVIA Holdings Inc	IQV	182.3	236.97	43,199.63	0.12%			10.83%	0.01%
Gartner Inc	IT	77.06	506.76	39,050.93	0.11%			7.00%	0.01%
FedEx Corp	FDX	244.323	273.68	66,866.32	0.18%	2.02%	0.00%	12.33%	0.02%
FMC Corp	FMC	124.824	65.94	8,230.89	0.02%	3.52%	0.00%	15.67%	0.00%
Brown & Brown Inc	BRO	285.261	103.6	29,553.04	0.08%	0.50%	0.00%	10.85%	0.01%
Ford Motor Co	F	3904.398	10.56	41,230.44	0.11%	5.68%	0.01%	1.34%	0.00%
NextEra Energy Inc	NEE	2055	84.53	173,709.15	0.47%	2.44%	0.01%	8.78%	0.04%
Franklin Resources Inc	BEN	522.998	20.15	10,538.41	0.03%	6.15%	0.00%	3.00%	0.00%
Garmin Ltd	GRMN	192.214	176.03	33,835.43	0.09%	1.70%	0.00%	9.55%	0.01%
Freight-McMoRan Inc	FCX	1436.856	49.92	71,727.85	0.19%	1.20%	0.00%	17.59%	0.03%
Dexcom Inc	DXCM	400.727	67.04	26,864.74				21.07%	
General Dynamics Corp	GD	274.778	302.2	83,037.91	0.22%	1.88%	0.00%	15.55%	0.03%
General Mills Inc	GIS	555.159	73.85	40,998.49	0.11%	3.25%	0.00%	2.45%	0.00%
Genuine Parts Co	GPC	139.318	139.68	19,459.94		2.86%			
Atmos Energy Corp	ATO	155.233	138.71	21,532.37		2.32%			
WW Grainger Inc	GWG	48.826	1038.81	50,720.94		0.79%			
Halliburton Co	HAL	882.829	29.05	25,646.18	0.07%	2.34%	0.00%	8.17%	0.01%
L3Harris Technologies Inc	LHX	189.705	237.87	45,125.13	0.12%	1.95%	0.00%	8.77%	0.01%
Healthpeak Properties Inc	DOC	699.291	22.87	15,992.79	0.04%	5.25%	0.00%	5.33%	0.00%
Insulet Corp	PODD	70.115	232.75	16,319.27				20.81%	
Catalent Inc	CTLT	181.464	60.57	10,991.27					
Fortive Corp	FTV	350.342	78.93	27,652.49	0.07%	0.41%	0.00%	10.49%	0.01%
Hershey Co/The	HSY	147.674	191.78	28,320.92	0.08%	2.86%	0.00%	2.21%	0.00%
Synchrony Financial	SYF	395.227	49.88	19,713.92		2.00%		64.00%	
Hormel Foods Corp	HRL	548.364	31.7	17,383.14	0.05%	3.56%	0.00%	6.23%	0.00%
Arthur J Gallagher & Co	AJG	219.1	281.37	61,648.17	0.17%	0.85%	0.00%	12.78%	0.02%
Mondelez International Inc	MDLZ	1335.798	73.67	98,408.24	0.27%	2.55%	0.01%	6.93%	0.02%
CenterPoint Energy Inc	CNP	651.721	29.42	19,173.63	0.05%	2.86%	0.00%	7.62%	0.00%
Humana Inc	HUM	120.402	316.74	38,136.13		1.12%		-1.30%	
Willis Towers Watson PLC	WTW	101.556	294.53	29,911.29	0.08%	1.20%	0.00%	11.69%	0.01%
Illinois Tool Works Inc	ITW	296.9	262.07	77,808.58	0.21%	2.29%	0.00%	6.90%	0.01%
CDW Corp/DE	CDW	133.576	226.3	30,228.25	0.08%	1.10%	0.00%	7.02%	0.01%
Trane Technologies PLC	TT	225.67	388.73	87,724.70	0.24%	0.86%	0.00%	15.56%	0.04%
Interpublic Group of Cos Inc/The	IPG	375.591	31.63	11,879.94	0.03%	4.17%	0.00%	2.12%	0.00%
International Flavors & Fragrances Inc	IFF	255.659	104.93	26,826.30	0.07%	1.52%	0.00%	2.12%	0.00%
Generac Holdings Inc	GNRC	60.153	158.88	9,557.11	0.03%			7.00%	0.00%
NXP Semiconductors NV	NXPI	254.733	240.01	61,138.47	0.16%	1.69%	0.00%	5.89%	0.01%
Kellanova	K	344.685	80.71	27,819.53	0.07%	2.82%	0.00%	9.29%	0.01%
Broadridge Financial Solutions Inc	BR	116.709	215.03	25,095.94		1.64%			
Kimberly-Clark Corp	KMB	336.804	142.28	47,920.47	0.13%	3.43%	0.00%	8.36%	0.01%
Kimco Realty Corp	KIM	674.116	23.22	15,652.97	0.04%	4.13%	0.00%	3.63%	0.00%
Oracle Corp	ORCL	2771.063	170.4	472,189.14	1.27%	0.94%	0.01%	11.95%	0.15%
Kroger Co/The	KR	723.486	57.3	41,455.75	0.11%	2.23%	0.00%	3.11%	0.00%
Lennar Corp	LEN	241.703	187.48	45,314.48	0.12%	1.07%	0.00%	9.07%	0.01%
Eli Lilly & Co	LLY	950.426	885.94	842,020.41		0.59%		33.00%	
Charter Communications Inc	CHTR	142.741	324.08	46,259.50	0.12%			7.07%	0.01%
Loews Corp	L	219.517	79.05	17,352.82		0.32%			
Lowe's Cos Inc	LOW	567.294	270.85	153,651.58		1.70%		-0.19%	
Hubbell Inc	HUBB	53.681	428.35	22,994.26		1.14%			
IDEX Corp	IEX	75.703	214.5	16,238.29		1.29%			
Marsh & McLennan Cos Inc	MMC	491.756	223.09	109,705.85	0.30%	1.46%	0.00%	9.10%	0.03%
Masco Corp	MAS	218.249	83.94	18,319.82	0.05%	1.38%	0.00%	7.76%	0.00%
S&P Global Inc	SPGI	320.2	156.62	165,421.72	0.45%	0.70%	0.00%	14.00%	0.06%
Medtronic PLC	MDT	1282.49	90.03	115,462.57	0.31%	3.11%	0.01%	5.66%	0.02%
Viatis Inc	VTRS	1193.52	11.61	13,856.77		4.13%		-3.41%	
CVS Health Corp	CVS	1257.979	62.88	79,101.72	0.21%	4.23%	0.01%	1.82%	0.00%
DuPont de Nemours Inc	DD	417.495	89.11	37,202.98	0.10%	1.71%	0.00%	2.50%	0.00%
Micron Technology Inc	MU	1108.841	103.71	114,997.90		0.44%		53.55%	
Motorola Solutions Inc	MSI	166.841	449.63	75,016.72	0.20%	0.87%	0.00%	9.36%	0.02%
Choe Global Markets Inc	CBOS	104.634	204.87	21,436.37	0.06%	1.23%	0.00%	13.78%	0.01%
Newmont Corp	NEM	1152.488	53.45	61,600.48		1.87%		40.36%	
NIKE Inc	NKE	1201.462	88.4	106,209.24	0.29%	1.67%	0.00%	4.53%	0.01%
NiSource Inc	NI	448.51	34.65	15,540.87	0.04%	3.06%	0.00%	7.90%	0.00%

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Name	Ticker	Shares Outst'g	Price	Market Capitalization	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Bloomberg Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
Norfolk Southern Corp	NSC	226.096	248.5	56,184.86	0.15%	2.17%	0.00%	9.92%	0.02%
Principal Financial Group Inc	PFJ	231.584	85.9	19,893.07	0.05%	3.35%	0.00%	13.00%	0.01%
Eversource Energy	ES	357.385	68.05	24,320.05	0.07%	4.20%	0.00%	5.46%	0.00%
Northrop Grumman Corp	NOC	146.245	528.07	77,227.60	0.21%	1.56%	0.00%	8.68%	0.02%
Wells Fargo & Co	WFC	3403.77	56.49	192,278.97	0.52%	2.83%	0.01%	7.95%	0.04%
Nucor Corp	NUE	237.338	150.34	35,681.39		1.44%		-1.63%	
Occidental Petroleum Corp	OXY	916.197	51.54	47,220.79		1.71%		24.00%	
Omnicom Group Inc	OMC	195.649	103.39	20,228.15	0.05%	2.71%	0.00%	5.45%	0.00%
ONEOK Inc	OKE	584.074	91.13	53,226.66	0.14%	4.35%	0.01%	2.95%	0.00%
Raymond James Financial Inc	RJF	205.943	122.01	25,127.11	0.07%	1.48%	0.00%	13.70%	0.01%
PG&E Corp	PCG	2137.461	19.77	42,257.60	0.11%	0.20%	0.00%	9.84%	0.01%
Parker-Hannifin Corp	PH	128.67	631.82	81,296.28	0.22%	1.03%	0.00%	13.44%	0.03%
Rollins Inc	ROL	484.314	50.58	24,496.60	0.07%	1.19%	0.00%	14.00%	0.01%
PPL Corp	PPL	737.773	33.08	24,405.53	0.07%	3.11%	0.00%	7.01%	0.00%
ConocoPhillips	COP	1161.25	105.28	122,256.40	0.33%	2.96%	0.01%	13.00%	0.04%
PulteGroup Inc	PHM	207.524	143.53	29,785.92	0.08%	0.56%	0.00%	8.99%	0.01%
Pinnacle West Capital Corp	PNW	113.612	88.59	10,064.89	0.03%	3.97%	0.00%	8.22%	0.00%
PNC Financial Services Group Inc/The	PNC	397.496	184.85	73,477.14	0.20%	3.46%	0.01%	18.04%	0.04%
PPG Industries Inc	PPG	233.3	132.46	30,902.92	0.08%	2.05%	0.00%	8.33%	0.01%
Progressive Corp/The	PGR	585.667	253.76	148,618.86		0.16%		39.61%	
Verato Corp	VLTO	247.106	111.86	27,641.28		0.32%			
Public Service Enterprise Group Inc	PEG	498.162	89.21	44,441.03	0.12%	2.69%	0.00%	7.47%	0.01%
Cooper Cos Inc/The	COO	199.156	110.34	21,974.87	0.06%			12.43%	0.01%
Edison International	EDX	383.925	87.09	33,436.03	0.09%	3.58%	0.00%	7.36%	0.01%
Schlumberger NV	SLB	1419.841	41.95	59,562.33	0.16%	2.62%	0.00%	12.22%	0.02%
Charles Schwab Corp/The	SCHW	1778.445	64.81	115,261.02	0.31%	1.54%	0.00%	14.04%	0.04%
Sherwin-Williams Co/The	SHW	252.258	381.67	96,279.31	0.26%	0.75%	0.00%	9.88%	0.03%
West Pharmaceutical Services Inc	WST	72.542	300.16	21,774.21	0.06%	0.27%	0.00%	2.89%	0.00%
J M Smucker Co/The	SJM	106.406	121.1	12,885.77	0.03%	3.57%	0.00%	6.07%	0.00%
Snap-on Inc	SNA	52.683	289.71	15,262.79	0.04%	2.57%	0.00%	3.83%	0.00%
AMETEK Inc	AME	231.536	171.71	39,757.05	0.11%	0.65%	0.00%	7.02%	0.01%
Uber Technologies Inc	UBER	2100.937	75.16	157,906.42				60.59%	
Southern Co/The	SO	1094.633	90.18	98,714.00	0.27%	3.19%	0.01%	7.23%	0.02%
Truist Financial Corp	TFC	1339.143	42.77	57,275.15	0.15%	4.86%	0.01%	10.91%	0.02%
Southwest Airlines Co	LUV	599.157	29.63	17,753.02		2.43%			
W R Berkley Corp	WRB	380.551	56.73	21,588.66	0.06%	0.56%	0.00%	13.27%	0.01%
Stanley Black & Decker Inc	SWK	153.959	110.13	16,955.50		2.98%			
Public Storage	PSA	175.703	363.87	63,933.05	0.17%	3.30%	0.01%	2.48%	0.00%
Arista Networks Inc	ANET	314.153	383.82	120,578.20	0.32%			18.60%	0.06%
Sysco Corp	SYT	491.521	78.06	38,368.13	0.10%	2.61%	0.00%	7.00%	0.01%
Corteva Inc	CTVA	687.797	58.79	40,435.59	0.11%	1.16%	0.00%	9.85%	0.01%
Texas Instruments Inc	TXN	913.046	206.57	188,607.91		2.63%		-2.86%	
Textron Inc	TXT	187.363	88.58	16,596.61	0.04%	0.09%	0.00%	10.05%	0.00%
Thermo Fisher Scientific Inc	TMO	381.996	618.57	236,291.27	0.64%	0.25%	0.00%	8.74%	0.06%
TXJ Cos Inc/The	TXJ	1127.873	117.54	132,570.19	0.36%	1.28%	0.00%	8.20%	0.03%
Globe Life Inc	GL	89.82	105.91	9,512.84	0.03%	0.91%	0.00%	6.00%	0.00%
Johnson Controls International plc	JCI	668.014	77.61	51,844.57	0.14%	1.91%	0.00%	9.26%	0.01%
Ultra Beauty Inc	ULTA	47.115	389.12	18,333.39	0.05%			1.64%	0.00%
Union Pacific Corp	UNP	609.198	246.48	150,155.12	0.40%	2.17%	0.01%	10.27%	0.04%
Keysight Technologies Inc	KEYS	173.543	158.93	27,581.19				-1.19%	
UnitedHealth Group Inc	UNH	923.418	584.68	539,904.04	1.45%	1.44%	0.02%	10.44%	0.15%
Blackstone Inc	BX	720.077	153.13	110,265.39		2.14%		22.74%	
Marathon Oil Corp	MRO	559.383	26.63	14,896.37		1.65%		-5.00%	
Ventas Inc	VTR	413.154	63.68	26,309.65	0.07%	2.83%	0.00%	8.22%	0.01%
Labcorp Holdings Inc	LH	83.963	223.48	18,764.05	0.05%	1.29%	0.00%	8.45%	0.00%
Vulcan Materials Co	VMC	132.06	250.43	33,071.79	0.09%	0.73%	0.00%	19.00%	0.02%
Weyerhaeuser Co	WY	727.315	33.86	24,626.89		2.36%		-11.50%	
Williams Cos Inc/The	WMB	1218.931	45.65	55,644.20	0.15%	4.16%	0.01%	4.28%	0.01%
Constellation Energy Corp	CEG	315.121	260.02	81,937.76		0.54%		24.22%	
WEC Energy Group Inc	WEC	316.079	96.18	30,400.48	0.08%	3.47%	0.00%	7.82%	0.01%
Adobe Inc	ADBE	440.2	517.78	227,926.76	0.61%			16.34%	0.10%
Vistra Corp	VST	343.561	118.54	40,725.72		3.74%			
AES Corp/The	AES	710.924	20.06	14,261.14		3.44%			
Expeditors International of Washington Inc	EXPD	141.128	131.4	18,544.22	0.05%	1.11%	0.00%	4.39%	0.00%
Amgen Inc	AMGN	537.329	322.21	173,132.78	0.47%	2.79%	0.01%	3.52%	0.02%
Apple Inc	AAPL	15204.137	233	3,542,563.92	9.54%	0.43%	0.04%	8.04%	0.77%
Autodesk Inc	ADSK	215	275.48	59,228.20	0.16%			10.23%	0.02%
Cintas Corp	CTAS	403.258	205.88	83,022.76	0.22%	0.76%	0.00%	12.00%	0.03%
Comcast Corp	CMCSA	3863.057	41.77	161,359.89	0.43%	2.97%	0.01%	8.16%	0.04%
Molson Coors Beverage Co	TAP	192.591	57.52	11,077.83	0.03%	3.06%	0.00%	5.29%	0.00%
KLA Corp	KLAC	133.976	774.41	103,752.35	0.28%	0.75%	0.00%	14.10%	0.04%
Marriott International Inc/MD	MAR	281.523	248.6	69,986.62	0.19%	1.01%	0.00%	4.25%	0.01%
Fiserv Inc	FI	575.725	179.65	103,429.00	0.28%			11.52%	0.03%
McCormick & Co Inc/MD	MKC	252.015	82.3	20,740.83	0.06%	2.04%	0.00%	5.83%	0.00%
PACCAR Inc	PCAR	524.222	98.68	51,730.23	0.14%	1.22%	0.00%	0.48%	0.00%
Costco Wholesale Corp	COST	443.335	886.52	393,025.34	1.06%	0.52%	0.01%	9.88%	0.10%
Stryker Corp	SYK	381.075	361.26	137,667.15	0.37%	0.89%	0.00%	8.60%	0.03%
Tyson Foods Inc	TSN	285.821	59.56	17,023.50		3.29%			
Lamb Weston Holdings Inc	LW	143.671	64.74	9,301.26	0.03%	2.22%	0.00%	2.16%	0.00%
Applied Materials Inc	AMAT	824.404	202.05	166,570.83	0.45%	0.79%	0.00%	9.28%	0.04%
Cardinal Health Inc	CAH	241.962	110.0144	26,619.30	0.07%	1.84%	0.00%	9.84%	0.01%
Cincinnati Financial Corp	CINF	156.24	136.12	21,267.39	0.06%	2.38%	0.00%	7.83%	0.00%
Paramount Global	PARA	626.012	10.62	6,648.25		1.88%		49.00%	
DR Horton Inc	DHI	326.04	190.77	62,198.65	0.17%	0.63%	0.00%	8.27%	0.01%
Electronic Arts Inc	EA	264.2	143.44	37,896.85	0.10%	0.53%	0.00%	12.97%	0.01%
Erie Indemnity Co	ERIE	46.189	539.82	24,933.75		0.94%			
Fair Isaac Corp	FICO	24.519	1943.52	47,653.17				23.00%	
Fastenal Co	FAST	572.646	71.42	40,898.38		2.18%			
M&T Bank Corp	MTB	167.001	178.12	29,746.22	0.08%	3.03%	0.00%	3.87%	0.00%
Xcel Energy Inc	XEL	557.501	65.3	36,404.82	0.10%	3.35%	0.00%	7.10%	0.01%
Fifth Third Bancorp	FITB	676.797	42.84	28,993.98		3.45%		25.00%	
Gilead Sciences Inc	GILD	1244.992	83.84	104,380.13	0.28%	3.67%	0.01%	15.38%	0.04%

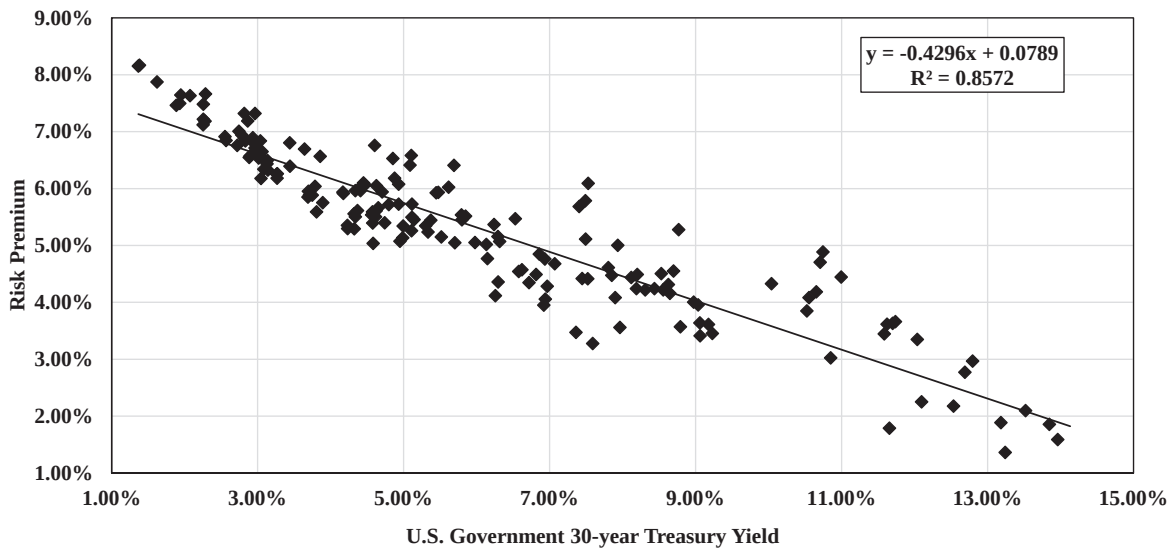
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Name	Ticker	Shares Outst'g	Price	Market Capitalization	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Bloomberg Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
Hasbro Inc	HAS	139.407	72.32	10,081.91		3.87%		34.01%	
Huntington Bancshares Inc/OH	HBAN	1452.433	14.7	21,350.77	0.06%	4.22%	0.00%	3.32%	0.00%
Welltower Inc	WELL	609.148	128.03	77,989.22	0.21%	2.09%	0.00%	15.65%	0.03%
Biogen Inc	BIIB	145.662	193.84	28,235.12	0.08%			6.10%	0.00%
Northern Trust Corp	NTRS	201.638	90.03	18,153.47	0.05%	3.33%	0.00%	10.11%	0.00%
Packaging Corp of America	PKG	89.812	215.4	19,345.50	0.05%	2.32%	0.00%	5.83%	0.00%
Paychex Inc	PAYX	359.742	134.19	48,273.78	0.13%	2.92%	0.00%	7.54%	0.01%
QUALCOMM Inc	QCOM	1114	170.05	189,435.70	0.51%	2.00%	0.01%	10.64%	0.05%
Ross Stores Inc	ROST	331.763	150.51	49,933.65	0.13%	0.98%	0.00%	8.85%	0.01%
IDEXX Laboratories Inc	IDXX	82.306	505.22	41,582.64	0.11%			11.25%	0.01%
Starbucks Corp	SBUX	1133.2	97.49	110,475.67	0.30%	2.34%	0.01%	9.67%	0.03%
KeyCorp	KEY	928.116	16.75	15,545.94	0.04%	4.90%	0.00%	20.00%	0.01%
Fox Corp	FOXA	224.646	42.33	9,509.27	0.03%	1.28%	0.00%	8.68%	0.00%
Fox Corp	FOX	235.581	38.8	9,140.54	0.02%	1.39%	0.00%	8.68%	0.00%
State Street Corp	STT	298.62	87.71	26,191.96	0.07%	3.47%	0.00%	8.82%	0.01%
Norwegian Cruise Line Holdings Ltd	NCLH	439.691	20.51	9,018.06				50.58%	
US Bancorp	USB	1560.514	45.73	71,362.31	0.19%	4.37%	0.01%	5.00%	0.01%
A O Smith Corp	AOS	119.959	89.83	10,775.92		1.42%			
Gen Digital Inc	GEN	615.525	27.43	16,883.85	0.05%	1.82%	0.00%	10.49%	0.00%
T Rowe Price Group Inc	TROW	222.598	108.93	24,247.60	0.07%	4.55%	0.00%	7.30%	0.00%
Waste Management Inc	WM	401.315	207.6	83,312.99	0.22%	1.45%	0.00%	13.29%	0.03%
Palantir Technologies Inc	PLTR	2142.323	37.2	79,694.42				30.06%	
Constellation Brands Inc	STZ	182.192	257.69	46,949.06	0.13%	1.57%	0.00%	11.27%	0.01%
Invesco Ltd	IVZ	450.032	17.56	7,902.56	0.02%	4.67%	0.00%	9.64%	0.00%
Intuit Inc	INTU	280.292	621	174,061.33	0.47%	0.67%	0.00%	18.79%	0.09%
Morgan Stanley	MS	1620.887	104.24	168,961.26	0.46%	3.55%	0.02%	9.60%	0.04%
Microchip Technology Inc	MCHP	536.505	80.29	43,075.99		2.26%		-10.99%	
CrowdStrike Holdings Inc	CRWD	232.717	280.47	65,270.14				35.70%	
Chubb Ltd	CB	403.934	288.39	116,490.53	0.31%	1.26%	0.00%	2.20%	0.01%
Hologic Inc	HOLX	232.272	81.46	18,920.88	0.05%			8.86%	0.00%
Citizens Financial Group Inc	CFG	448.3	41.07	18,411.68		4.09%			
Jabil Inc	JBL	113.445	119.83	13,594.11	0.04%	0.27%	0.00%	10.82%	0.00%
O'Reilly Automotive Inc	ORLY	58.006	1151.6	66,799.71	0.18%			10.21%	0.02%
Allstate Corp/The	ALL	264.041	189.65	50,075.38		1.94%		168.00%	
Equity Residential	EQR	379.136	74.46	28,230.47	0.08%	3.63%	0.00%	2.83%	0.00%
BorgWarner Inc	BWA	227.769	36.29	8,265.74	0.02%	1.21%	0.00%	4.40%	0.00%
Keurig Dr Pepper Inc	KDP	1356.086	37.48	50,826.10	0.14%	2.45%	0.00%	6.90%	0.01%
Host Hotels & Resorts Inc	HST	702.44	17.6	12,362.94		4.55%		-1.83%	
Incyte Corp	INCY	192.598	66.1	12,730.73				33.16%	
Simon Property Group Inc	SPG	326.035	169.02	55,106.44	0.15%	4.85%	0.01%	1.42%	0.00%
Eastman Chemical Co	EMN	116.86	111.95	13,082.48	0.04%	2.89%	0.00%	6.10%	0.00%
AvalonBay Communities Inc	AVB	142.217	225.25	32,034.38	0.09%	3.02%	0.00%	4.93%	0.00%
Prudential Financial Inc	PRU	357	121.1	43,232.70	0.12%	4.29%	0.01%	9.48%	0.01%
United Parcel Service Inc	UPS	732.509	136.34	99,870.28	0.27%	4.78%	0.01%	0.60%	0.00%
Walgreens Boots Alliance Inc	WBA	863.275	8.96	7,734.94		11.16%		-24.69%	
STERIS PLC	STE	98.617	242.54	23,918.57		0.94%			
McKesson Corp	MCK	129.677	494.42	64,114.90	0.17%	0.57%	0.00%	11.18%	0.02%
Lockheed Martin Corp	LMT	238.358	584.56	139,334.55	0.38%	2.16%	0.01%	2.11%	0.01%
Cencora Inc	COR	196.008	255.08	44,117.48	0.12%	0.91%	0.00%	9.84%	0.01%
Capital One Financial Corp	COF	381.856	149.73	57,175.30	0.15%	1.60%	0.00%	12.30%	0.02%
Campbell Soup Co	CPB	298.106	48.92	14,583.35	0.04%	3.03%	0.00%	5.71%	0.00%
Waters Corp	WAT	59.362	359.89	21,363.79	0.06%			7.80%	0.00%
Nordson Corp	NDSN	57.182	262.63	15,017.71		1.19%			
Dollar Tree Inc	DLTR	214.992	70.32	15,118.24	0.04%			6.86%	0.00%
Darden Restaurants Inc	DRI	117.5	164.13	19,285.28	0.05%	3.41%	0.00%	9.75%	0.01%
Evergy Inc	EVRG	229.746	62.01	14,246.55	0.04%	4.14%	0.00%	5.35%	0.00%
Match Group Inc	MTCH	257.895	37.84	9,758.75				36.15%	
Dominio's Pizza Inc	DPZ	34.973	430.14	15,043.29	0.04%	1.40%	0.00%	12.56%	0.01%
NVR Inc	NVR	3.078	9811.8	30,200.72	0.08%			7.60%	0.01%
NetApp Inc	NTAP	204.783	123.51	25,292.75	0.07%	1.68%	0.00%	5.34%	0.00%
Old Dominion Freight Line Inc	ODFL	214.297	198.64	42,567.96	0.11%	0.52%	0.00%	2.77%	0.00%
DaVita Inc	DVA	83.9	163.93	13,753.73	0.04%			20.00%	0.01%
Hartford Financial Services Group Inc/The	HIG	293.014	117.61	34,461.38	0.09%	1.60%	0.00%	12.37%	0.01%
Iron Mountain Inc	IRM	293.336	118.83	34,857.12		2.41%			
Estee Lauder Cos Inc/The	EL	233.432	99.69	23,270.84	0.06%	2.65%	0.00%	14.58%	0.01%
Cadence Design Systems Inc	CDNS	273.82	271.03	74,213.43	0.20%			16.20%	0.03%
Tyler Technologies Inc	TYL	42.673	583.72	24,909.08					
Universal Health Services Inc	UHS	59.462	229.01	13,617.39	0.04%	0.35%	0.00%	15.50%	0.01%
Skyworks Solutions Inc	SKWS	159.716	98.77	15,775.15		2.83%		-2.57%	
Quest Diagnostics Inc	DGX	111.317	155.25	17,281.96	0.05%	1.93%	0.00%	6.05%	0.00%
Rockwell Automation Inc	ROK	113.467	268.46	30,461.35	0.08%	1.86%	0.00%	1.73%	0.00%
Kraft Heinz Co/The	KHC	1209.079	35.11	42,450.76	0.11%	4.56%	0.01%	2.51%	0.00%
American Tower Corp	AMT	467.082	232.56	108,624.59	0.29%	2.79%	0.01%	12.31%	0.04%
Regeneron Pharmaceuticals Inc	REGN	108.417	1051.24	113,972.29	0.31%			8.67%	0.03%
Amazon.com Inc	AMZN	10495.567	186.33	1,955,639.00				34.66%	
Jack Henry & Associates Inc	JKHY	72.917	176.54	12,872.77	0.03%	1.25%	0.00%	9.73%	0.00%
Ralph Lauren Corp	RL	40.058	193.87	7,766.04	0.02%	1.70%	0.00%	11.05%	0.00%
BXP Inc	BXP	157.934	80.46	12,707.37	0.03%	4.87%	0.00%	0.90%	0.00%
Amphenol Corp	APH	1204.289	65.16	78,471.47	0.21%	1.01%	0.00%	16.86%	0.04%
Howmet Aerospace Inc	HWM	408.147	100.25	40,916.74		0.32%		22.11%	
Valero Energy Corp	VLO	320.38	135.03	43,260.91		3.17%		-24.00%	
Synopsys Inc	SNPS	153.614	506.39	77,788.59	0.21%			16.33%	0.03%
CH Robinson Worldwide Inc	CHRW	117.283	110.37	12,944.52	0.03%	2.25%	0.00%	17.48%	0.01%
Accenture PLC	ACN	626.384	353.48	221,414.22	0.60%	1.67%	0.01%	8.18%	0.05%
TransDigm Group Inc	TDG	56.111	1427.13	80,077.69	0.22%			19.57%	0.04%
Yum! Brands Inc	YUM	281.165	139.71	39,281.56	0.11%	1.92%	0.00%	11.41%	0.01%
Prologis Inc	PLD	925.911	126.28	116,924.04	0.31%	3.04%	0.01%	5.36%	0.02%
FirstEnergy Corp	FE	575.922	44.35	25,542.14	0.07%	3.83%	0.00%	7.02%	0.00%
VeriSign Inc	VRSN	97.6	189.96	18,540.10					
Quanta Services Inc	PWR	147.33	298.06	43,913.18		0.12%			
Henry Schein Inc	HSIC	126.708	72.9	9,237.01	0.02%			9.01%	0.00%
Ameren Corp	AEE	266.511	87.46	23,309.05	0.06%	3.06%	0.00%	6.08%	0.00%

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Name	Ticker	Shares Outst'g	Price	Market Capitalization	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Bloomberg Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
ANSYS Inc	ANSS	87.387	318.63	27,844.12					
FactSet Research Systems Inc	FDS	38.04	459.85	17,492.69	0.05%	0.90%	0.00%	9.17%	0.00%
NVIDIA Corp	NVDA	24530	121.44	2,978,923.20		0.03%		44.35%	
Cognizant Technology Solutions Corp	CTSH	495.658	77.18	38,254.88	0.10%	1.55%	0.00%	6.20%	0.01%
Intuitive Surgical Inc	ISRG	355.354	491.27	174,574.76	0.47%			17.51%	0.08%
Take-Two Interactive Software Inc	TTWO	175.283	153.71	26,942.75				60.49%	
Republic Services Inc	RSG	314.068	200.84	63,077.42	0.17%	1.16%	0.00%	10.33%	0.02%
eBay Inc	EBAY	489	65.11	31,838.79	0.09%	1.66%	0.00%	10.12%	0.01%
Goldman Sachs Group Inc/The	GS	315.8	495.11	156,355.74	0.42%	2.42%	0.01%	14.20%	0.06%
SBA Communications Corp	SBAC	107.472	240.7	25,868.51	0.07%	1.63%	0.00%	15.96%	0.01%
Sempra	SRE	633.146	83.63	52,950.00	0.14%	2.97%	0.00%	5.35%	0.01%
Moody's Corp	MCO	182.1	474.59	86,422.84	0.23%	0.72%	0.00%	13.00%	0.03%
ON Semiconductor Corp	ON	428.356	72.61	31,102.93	0.08%			1.28%	0.00%
Booking Holdings Inc	BKNG	33.524	4212.12	141,207.11	0.38%	0.83%	0.00%	14.59%	0.06%
F5 Inc	FFIV	58.284	220.2	12,834.14	0.03%			7.83%	0.00%
Akamai Technologies Inc	AKAM	151.526	100.95	15,296.55	0.04%			6.12%	0.00%
Charles River Laboratories International Inc	CRL	51.631	196.97	10,169.76	0.03%			5.20%	0.00%
MarketAxess Holdings Inc	MKTX	37.752	256.2	9,672.06	0.03%	1.16%	0.00%	4.02%	0.00%
Devon Energy Corp	DEV	626.2	39.12	24,496.94	0.07%	2.25%	0.00%	6.60%	0.00%
Bio-Techne Corp	TECH	158.665	79.93	12,682.09	0.03%	0.40%	0.00%	5.00%	0.00%
Alphabet Inc	GOOGL	5859	165.85	971,715.15	2.62%	0.48%	0.01%	15.01%	0.39%
Teleflex Inc	TEF	47.117	247.32	11,652.98	0.03%	0.55%	0.00%	7.95%	0.00%
Allegion plc	ALLE	87.128	145.74	12,698.03	0.03%	1.32%	0.00%	7.73%	0.00%
Netflix Inc	NFLX	429.165	709.27	304,393.86				35.72%	
Agilent Technologies Inc	A	287.328	148.2441	42,594.68	0.11%	0.64%	0.00%	5.74%	0.01%
Warner Bros Discovery Inc	WBD	2451.908	8.25	20,228.24				28.63%	
Elevance Health Inc	ELV	231.886	520	120,580.72	0.32%	1.25%	0.00%	11.79%	0.04%
Trimble Inc	TRMB	244.208	62.09	15,162.87					
CME Group Inc	CME	360.094	220.65	79,454.74	0.21%	2.08%	0.00%	2.96%	0.01%
Juniper Networks Inc	JNPR	329.163	38.98	12,830.77	0.03%	2.26%	0.00%	6.00%	0.00%
BlackRock Inc	BLK	148.128	949.51	140,649.02	0.38%	2.15%	0.01%	9.76%	0.04%
DTE Energy Co	DTE	206.925	128.41	26,571.24	0.07%	3.18%	0.00%	10.27%	0.01%
Nasdaq Inc	NDQA	575.94	73.01	42,049.38	0.11%	1.31%	0.00%	10.76%	0.01%
Celanese Corp	CE	109.264	135.96	14,855.53	0.04%	2.06%	0.00%	0.56%	0.00%
Philip Morris International Inc	PM	1554.802	121.4	188,752.96	0.51%	4.45%	0.02%	9.36%	0.05%
Salesforce Inc	CRM	956	273.71	261,666.76	0.70%	0.58%	0.00%	17.52%	0.12%
Ingersoll Rand Inc	IR	403.484	98.16	39,605.99		0.08%			
Huntington Ingalls Industries Inc	HII	39.215	264.38	10,367.66	0.03%	1.97%	0.00%	7.62%	0.00%
Roper Technologies Inc	ROP	107.199	556.44	59,649.81		0.54%			
MetLife Inc	MET	700.325	82.48	57,762.81	0.16%	2.64%	0.00%	14.21%	0.02%
Tapestry Inc	TPR	232.603	46.98	10,927.69	0.03%	2.98%	0.00%	5.52%	0.00%
CSX Corp	CSX	1938.74	34.53	66,944.69	0.18%	1.39%	0.00%	8.83%	0.02%
Edwards Lifesciences Corp	EW	602.4	65.99	39,752.38	0.11%			8.56%	0.01%
Ameriprise Financial Inc	AMP	98.189	469.81	46,130.17	0.12%	1.26%	0.00%	16.59%	0.02%
Zebra Technologies Corp	ZBRA	51.58	370.32	19,101.11					
Zimmer Biomet Holdings Inc	ZBH	203.652	107.95	21,984.23	0.06%	0.89%	0.00%	6.46%	0.00%
CBRE Group Inc	CBRE	306.431	124.48	38,144.53					
Camden Property Trust	CPT	106.635	123.53	13,172.62	0.04%	3.34%	0.00%	1.87%	0.00%
Mastercard Inc	MA	916.711	493.8	452,671.89	1.22%	0.53%	0.01%	15.18%	0.19%
CarMax Inc	KMX	154.924	77.38	11,988.02	0.03%			17.91%	0.01%
Intercontinental Exchange Inc	ICE	574.142	160.64	92,230.17	0.25%	1.12%	0.00%	9.95%	0.02%
Smurfit WestRock PLC	SW	519.96	49.42	25,696.42	0.07%	2.45%	0.00%	1.00%	0.00%
Fidelity National Information Services Inc	FIS	545.566	83.75	45,691.15		1.72%		22.20%	
Chipotle Mexican Grill Inc	CMG	1369.476	57.62	78,909.21				22.64%	
Wynn Resorts Ltd	WYNN	110.992	95.88	10,641.91		1.04%		-12.14%	
Live Nation Entertainment Inc	LYV	232.114	109.49	25,414.16				32.54%	
Assurant Inc	AIZ	51.793	198.86	10,299.56	0.03%	1.45%	0.00%	7.14%	0.00%
NRG Energy Inc	NRG	206.38	91.1	18,801.22	0.05%	1.79%	0.00%	4.00%	0.00%
Regions Financial Corp	RF	915.125	23.33	21,349.87	0.06%	4.29%	0.00%	4.68%	0.00%
Monster Beverage Corp	MNST	979.544	52.17	51,102.81	0.14%			10.18%	0.01%
Mosaic Co/The	MOS	318.638	26.78	8,533.13		3.14%		-21.74%	
Baker Hughes Co	BKR	993.424	36.15	35,912.28		2.32%		27.42%	
Expedia Group Inc	EXPE	124.656	148.02	18,451.58	0.05%			19.59%	0.01%
CF Industries Holdings Inc	CF	180.412	85.8	15,479.35		2.33%		-9.54%	
Leidos Holdings Inc	LDO	134.714	163	21,958.38	0.06%	0.93%	0.00%	11.76%	0.01%
APA Corp	APA	369.905	24.46	9,047.88		4.09%		-7.60%	
Alphabet Inc	GOOG	5585	167.19	933,756.15	2.52%	0.48%	0.01%	15.01%	0.38%
First Solar Inc	FSLR	107.047	249.44	26,701.80				41.25%	
Discover Financial Services	DFS	251.072	140.29	35,222.89	0.09%	2.00%	0.00%	11.62%	0.01%
Visa Inc	V	1670.445	274.95	459,288.85	1.24%	0.76%	0.01%	12.33%	0.15%
Mid-America Apartment Communities Inc	MAA	116.876	158.9	18,571.60	0.05%	3.70%	0.00%	0.65%	0.00%
Xylem Inc/NY	XYL	242.893	135.03	32,797.84		1.07%			
Marathon Petroleum Corp	MPC	334.684	162.91	54,523.37		2.03%		-13.00%	
Advanced Micro Devices Inc	AMD	1618.482	164.08	265,560.53				25.66%	
Tractor Supply Co	TSCO	107.869	290.93	31,382.33	0.08%	1.51%	0.00%	5.68%	0.00%
ResMed Inc	RMD	146.932	244.12	35,869.04	0.10%	0.87%	0.00%	11.49%	0.01%
Mettler-Toledo International Inc	MTD	21.357	1499.7	32,029.09	0.09%			9.15%	0.01%
Jacobs Solutions Inc	J	124.248	130.9	16,264.06		0.89%	0.00%	10.87%	0.00%
Copart Inc	CPRT	963.287	52.4	50,476.24					
VICI Properties Inc	VICI	1043.137	33.31	34,746.89	0.09%	5.19%	0.00%	1.83%	0.00%
Fortinet Inc	FTNT	764.908	77.55	59,318.62	0.16%			8.66%	0.01%
Albemarle Corp	ALB	117.533	94.71	11,131.55		1.71%		35.42%	
Moderna Inc	MRNA	384.396	66.83	25,689.18	0.07%			16.57%	0.01%
Essex Property Trust Inc	ESS	64.218	295.42	18,971.28	0.05%	3.32%	0.00%	3.49%	0.00%
CoStar Group Inc	CSGP	409.817	75.44	30,916.59					
Realty Income Corp	O	870.868	63.1565	55,000.97	0.15%	5.01%	0.01%	3.85%	0.01%
Westinghouse Air Brake Technologies Corp	WAB	175.183	181.77	31,843.01	0.09%	0.44%	0.00%	16.12%	0.01%
Pool Corp	POOL	38.258	376.8	14,415.61		1.27%		-0.04%	
Western Digital Corp	WDC	343.452	68.29	23,454.34				-10.00%	
PepsiCo Inc	PEP	1373.572	170.05	233,575.92	0.63%	3.19%	0.02%	6.97%	0.04%
TE Connectivity PLC	TEL	380.372	150.99	57,432.37	0.15%	1.72%	0.00%	7.43%	0.01%
Diamondback Energy Inc	FANG	295.694	172.4	50,977.65	0.14%	5.43%	0.01%	8.34%	0.01%

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Name	Ticker	Shares Outst'g	Price	Market Capitalization	Weight in Index	Estimated Dividend Yield	Cap-Weighted Dividend Yield	Bloomberg Long-Term Growth Est.	Cap-Weighted Long-Term Growth Est.
Palo Alto Networks Inc	PANW	325.6	341.8	111,290.08	0.30%			11.52%	0.03%
ServiceNow Inc	NOW	206	894.39	184,244.34					
Church & Dwight Co Inc	CHD	244.815	104.72	25,637.03	0.07%	1.08%	0.00%	7.35%	0.01%
Federal Realty Investment Trust	FRT	83.67	113.87	9,527.50	0.03%	3.86%	0.00%	4.97%	0.00%
Amentum Holdings Inc	AMTM	153.28	32.25	4,943.28					
MGM Resorts International	MGM	303.77	39.09	11,874.37				20.60%	
American Electric Power Co Inc	AEP	532.12	102.6	54,595.51	0.15%	3.43%	0.01%	6.25%	0.01%
Invitation Homes Inc	INVH	612.594	35.26	21,600.06	0.06%	3.18%	0.00%	4.16%	0.00%
PTC Inc	PTC	120.135	180.66	21,703.59	0.06%			14.76%	0.01%
JB Hunt Transport Services Inc	JBHT	101.987	172.33	17,575.42	0.05%	1.00%	0.00%	9.73%	0.00%
Lam Research Corp	LRCX	129.611	816.08	105,772.94	0.28%	1.13%	0.00%	16.29%	0.05%
Mohawk Industries Inc	MHK	63.117	160.68	10,141.64	0.03%			4.45%	0.00%
Pentair PLC	PNR	165.498	97.79	16,184.05	0.04%	0.94%	0.00%	12.50%	0.01%
GE HealthCare Technologies Inc	GEHC	456.662	93.85	42,857.73	0.12%	0.13%	0.00%	10.92%	0.01%
Vertex Pharmaceuticals Inc	VRTX	258.102	465.08	120,038.08	0.32%			11.00%	0.04%
Amcor PLC	AMCR	1445.343	11.33	16,375.74	0.04%	4.41%	0.00%	3.71%	0.00%
Meta Platforms Inc	META	2184.729	572.44	1,250,626.27	3.37%	0.35%	0.01%	19.80%	0.67%
T-Mobile US Inc	TMUS	1166.784	206.36	240,777.55	0.65%	1.71%	0.01%	5.00%	0.03%
United Rentals Inc	URI	66.136	809.73	53,552.30	0.14%	0.81%	0.00%	7.45%	0.01%
Honeywell International Inc	HON	649.671	206.71	134,293.49	0.36%	2.19%	0.01%	8.65%	0.03%
Alexandria Real Estate Equities Inc	ARE	174.926	118.75	20,772.46	0.06%	4.38%	0.00%	3.03%	0.00%
Delta Air Lines Inc	DAL	645.419	50.79	32,780.83	0.09%	1.18%	0.00%	8.44%	0.01%
Seagate Technology Holdings PLC	STX	210.49	109.53	23,054.97		2.56%			
United Airlines Holdings Inc	UAL	328.803	57.06	18,761.50	0.05%			2.27%	0.00%
News Corp	NWS	190.083	27.95	5,312.82		0.72%			
Centene Corp	CNC	526.03	75.28	39,599.54	0.11%			4.40%	0.00%
Martin Marietta Materials Inc	MLM	61.117	538.25	32,896.23	0.09%	0.59%	0.00%	7.47%	0.01%
Teradyne Inc	TER	163.176	133.93	21,854.16	0.06%	0.36%	0.00%	16.14%	0.01%
PayPal Holdings Inc	PYPL	1022.333	78.03	79,772.64	0.21%			12.03%	0.03%
Tesla Inc	TSLA	3194.64	261.63	835,813.66				-11.00%	
Arch Capital Group Ltd	ACGL	376.058	111.88	42,073.37	0.11%			6.13%	0.01%
KKR & Co Inc	KKR	887.44	130.58	115,881.92		0.54%		29.00%	
Dow Inc	DOW	703.268	54.63	38,419.53		5.13%		-2.67%	
Everest Group Ltd	EG	43.274	391.83	16,956.05	0.05%	2.04%	0.00%	2.33%	0.00%
Teledyne Technologies Inc	TDY	46.784	437.66	20,475.49	0.06%			7.34%	0.00%
GE Vernova Inc	GEV	274.802	254.98	70,069.01				80.76%	
News Corp	NWSA	379.531	26.63	10,106.91		0.75%			
Exelon Corp	EXC	999.735	40.55	40,539.25	0.11%	3.75%	0.00%	5.31%	0.01%
Global Payments Inc	GPN	254.437	102.42	26,059.44	0.07%	0.98%	0.00%	8.80%	0.01%
Crown Castle Inc	CCI	434.567	118.63	51,552.68	0.14%	5.28%	0.01%	1.13%	0.00%
Aptiv PLC	APTIV	265.76	72.01	19,137.38	0.05%			16.91%	0.01%
Align Technology Inc	ALGN	74.697	254.32	18,996.94	0.05%			9.53%	0.00%
Kenvue Inc	KVUE	1915.167	23.13	44,297.81	0.12%	3.55%	0.00%	13.58%	0.02%
Targa Resources Corp	TRGP	219.08	148.01	32,426.03	0.09%	2.03%	0.00%	16.74%	0.01%
Bunge Global SA	BG	141.651	96.64	13,689.15		2.81%		-8.59%	
Deckers Outdoor Corp	DECK	152.463	159.45	24,310.23	0.07%			10.80%	0.01%
LKQ Corp	LKQ	263.256	39.92	10,509.18		3.01%			
Zoetis Inc	ZTS	453.051	195.38	88,517.10	0.24%	0.88%	0.00%	10.36%	0.02%
Digital Realty Trust Inc	DLR	327.411	161.83	52,984.92	0.14%	3.02%	0.00%	3.21%	0.00%
Equinix Inc	EQIX	94.945	887.63	84,276.03	0.23%	1.92%	0.00%	14.03%	0.03%
Las Vegas Sands Corp	LVS	736.432	50.34	37,071.99		1.59%			
Molina Healthcare Inc	MOH	58.6	344.56	20,191.22	0.05%			11.98%	0.01%

Notes:

- [1] Equals sum of Col. [9]
[2] Equals sum of Col. [11]
[3] Equals (([1] x (1 + (0.5 x (2)))) + [2])
[4] Bloomberg Professional as of September 30, 2024
[5] Bloomberg Professional as of September 30, 2024
[6] Equals [4] x [5]
[7] Equals weight in S&P 500 based on market capitalization [6] if Growth Rate >0% and ≤20%
[8] Source: Bloomberg Professional, as of September 30, 2024
[9] Equals [7] x [8]
[10] Bloomberg Professional, as of September 30, 2024
[11] Equals [7] x [10]



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.9258710
R Square	0.8572370
Adjusted R Square	0.8564118
Standard Error	0.0054250
Observations	175

ANOVA

	df	SS	MS	F	Significance F
Regression	1	0.03057	0.03057	1,038.79871	0.00000
Residual	173	0.00509	0.00003		
Total	174	0.03566			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.0789	0.00	87.26	0.0000	0.0772	0.0807	0.0772	0.0807
U.S. Govt. 30-year Treasury	(0.4296)	0.01	(32.23)	0.0000	(0.4559)	(0.4033)	(0.4559)	(0.4033)

	[7]	[8]	[9]
	U.S. Govt. 30-year Treasury	Risk Premium	ROE
Current 30-day average of 30-year U.S. Treasury bond yield [4]	4.07%	6.15%	10.22%
Blue Chip Near-Term Projected Forecast (Q1 2025 - Q1 2026) [5]	4.02%	6.17%	10.19%
Blue Chip Long-Term Projected Forecast (2026-2030) [6]	4.30%	6.05%	10.35%
AVERAGE			10.25%

Notes:

- [1] Regulatory Research Associates, rate cases through September 30, 2024
[2] S&P Capital IQ Pro, quarterly bond yields are the average of each trading day in the quarter
[3] Equals Column [1] – Column [2]
[4] S&P Capital IQ Pro, 30-day average as of September 30, 2024
[5] Blue Chip Financial Forecasts, Vol. 43, No. 6, October 1, 2024, at 2
[6] Blue Chip Financial Forecasts, Vol. 43, No. 6, May 31, 2024, at 14
[7] See notes [4], [5] & [6]
[8] Equals 0.078948 + (-0.429628 x Column [7])
[9] Equals Column [7] + Column [8]

BOND YIELD PLUS RISK PREMIUM

	[1]	[2]	[3]
	Average		
Quarter	Authorized Natural Gas ROE	U.S. Govt. 30- year Treasury	Risk Premium
1980.1	13.45%	11.66%	1.79%
1980.2	14.38%	10.52%	3.85%
1980.3	13.87%	10.85%	3.02%
1980.4	14.35%	12.10%	2.25%
1981.1	14.71%	12.53%	2.18%
1981.2	14.61%	13.24%	1.36%
1981.3	14.86%	14.13%	0.72%
1981.4	15.70%	13.85%	1.86%
1982.1	15.55%	13.96%	1.59%
1982.2	15.62%	13.52%	2.10%
1982.3	15.77%	12.79%	2.97%
1982.4	15.63%	10.75%	4.89%
1983.1	15.41%	10.71%	4.71%
1983.2	14.84%	10.65%	4.19%
1983.3	15.24%	11.62%	3.62%
1983.4	15.40%	11.74%	3.66%
1984.1	15.39%	12.04%	3.35%
1984.2	15.07%	13.18%	1.89%
1984.3	15.46%	12.69%	2.77%
1984.4	15.33%	11.70%	3.63%
1985.1	15.03%	11.58%	3.45%
1985.2	15.44%	11.00%	4.45%
1985.3	14.64%	10.55%	4.08%
1985.4	14.37%	10.04%	4.33%
1986.1	14.05%	8.77%	5.28%
1986.2	13.28%	7.49%	5.79%
1986.3	13.09%	7.40%	5.69%
1986.4	13.62%	7.53%	6.09%
1987.1	12.61%	7.49%	5.11%
1987.2	13.04%	8.53%	4.51%
1987.3	12.70%	9.06%	3.64%
1987.4	12.69%	9.23%	3.46%
1988.1	12.94%	8.63%	4.31%
1988.2	12.48%	9.06%	3.41%
1988.3	12.79%	9.18%	3.61%
1988.4	12.98%	8.97%	4.00%
1989.1	12.99%	9.04%	3.96%
1989.2	13.25%	8.70%	4.55%
1989.3	12.56%	8.12%	4.44%
1989.4	12.94%	7.93%	5.00%
1990.1	12.68%	8.44%	4.24%
1990.2	12.81%	8.65%	4.16%
1990.3	12.36%	8.79%	3.57%
1990.4	12.78%	8.56%	4.22%
1991.1	12.69%	8.20%	4.49%
1991.2	12.53%	8.31%	4.22%
1991.3	12.43%	8.19%	4.24%
1991.4	12.33%	7.85%	4.48%
1992.1	12.42%	7.81%	4.61%
1992.2	11.98%	7.90%	4.09%
1992.3	11.87%	7.45%	4.42%
1992.4	11.94%	7.52%	4.42%
1993.1	11.75%	7.07%	4.68%
1993.2	11.71%	6.86%	4.85%
1993.3	11.39%	6.32%	5.07%
1993.4	11.16%	6.14%	5.02%
1994.1	11.12%	6.58%	4.54%
1994.2	10.84%	7.36%	3.47%
1994.3	10.87%	7.59%	3.28%

	[1]	[2]	[3]
	Average		
Quarter	Natural Gas ROE	U.S. Govt. 30- year Treasury	Risk Premium
1994.4	11.53%	7.96%	3.56%
1995.2	11.00%	6.94%	4.06%
1995.3	11.07%	6.72%	4.35%
1995.4	11.61%	6.24%	5.37%
1996.1	11.45%	6.29%	5.16%
1996.2	10.88%	6.92%	3.95%
1996.3	11.25%	6.97%	4.28%
1996.4	11.19%	6.62%	4.57%
1997.1	11.31%	6.82%	4.49%
1997.2	11.70%	6.94%	4.76%
1997.3	12.00%	6.53%	5.47%
1997.4	10.92%	6.15%	4.77%
1998.2	11.37%	5.85%	5.52%
1998.3	11.41%	5.48%	5.93%
1998.4	11.69%	5.11%	6.58%
1999.1	10.82%	5.37%	5.44%
1999.2	11.25%	5.80%	5.45%
1999.4	10.38%	6.26%	4.12%
2000.1	10.66%	6.30%	4.36%
2000.2	11.03%	5.98%	5.05%
2000.3	11.33%	5.79%	5.54%
2000.4	12.10%	5.69%	6.41%
2001.1	11.38%	5.45%	5.93%
2001.2	10.75%	5.70%	5.05%
2001.4	10.65%	5.30%	5.35%
2002.1	10.67%	5.52%	5.15%
2002.2	11.64%	5.62%	6.03%
2002.3	11.50%	5.09%	6.41%
2002.4	11.01%	4.93%	6.08%
2003.1	11.38%	4.85%	6.53%
2003.2	11.36%	4.60%	6.76%
2003.3	10.61%	5.11%	5.50%
2003.4	10.84%	5.11%	5.73%
2004.1	11.06%	4.88%	6.18%
2004.2	10.57%	5.34%	5.24%
2004.3	10.37%	5.11%	5.26%
2004.4	10.66%	4.93%	5.73%
2005.1	10.65%	4.71%	5.94%
2005.2	10.54%	4.47%	6.07%
2005.3	10.47%	4.42%	6.05%
2005.4	10.32%	4.65%	5.66%
2006.1	10.68%	4.63%	6.05%
2006.2	10.60%	5.14%	5.46%
2006.3	10.34%	5.00%	5.34%
2006.4	10.14%	4.74%	5.40%
2007.1	10.52%	4.80%	5.72%
2007.2	10.13%	4.99%	5.14%
2007.3	10.03%	4.95%	5.08%
2007.4	10.12%	4.61%	5.50%
2008.1	10.38%	4.41%	5.97%
2008.2	10.17%	4.57%	5.59%
2008.3	10.55%	4.45%	6.10%
2008.4	10.34%	3.64%	6.69%
2009.1	10.24%	3.44%	6.80%
2009.2	10.11%	4.17%	5.94%
2009.3	9.88%	4.32%	5.56%
2009.4	10.31%	4.34%	5.97%
2010.1	10.24%	4.62%	5.61%
2010.2	9.99%	4.37%	5.62%
2010.3	10.43%	3.86%	6.57%
2010.4	10.09%	4.17%	5.92%

	[1]	[2]	[3]
	Average		
Quarter	Natural Gas ROE	U.S. Govt. 30- year Treasury	Risk Premium
2011.1	10.10%	4.56%	5.54%
2011.2	9.85%	4.34%	5.51%
2011.3	9.65%	3.70%	5.95%
2011.4	9.88%	3.04%	6.84%
2012.1	9.63%	3.14%	6.50%
2012.2	9.83%	2.94%	6.89%
2012.3	9.75%	2.74%	7.01%
2012.4	10.06%	2.86%	7.19%
2013.1	9.57%	3.13%	6.44%
2013.2	9.47%	3.14%	6.33%
2013.3	9.60%	3.71%	5.89%
2013.4	9.83%	3.79%	6.04%
2014.1	9.54%	3.69%	5.85%
2014.2	9.84%	3.44%	6.39%
2014.3	9.45%	3.27%	6.18%
2014.4	10.28%	2.96%	7.32%
2015.1	9.47%	2.55%	6.91%
2015.2	9.43%	2.88%	6.55%
2015.3	9.75%	2.96%	6.79%
2015.4	9.68%	2.96%	6.71%
2016.1	9.48%	2.72%	6.76%
2016.2	9.42%	2.57%	6.85%
2016.3	9.47%	2.28%	7.19%
2016.4	9.67%	2.83%	6.84%
2017.1	9.60%	3.05%	6.55%
2017.2	9.47%	2.90%	6.57%
2017.3	10.14%	2.82%	7.32%
2017.4	9.70%	2.82%	6.88%
2018.1	9.68%	3.02%	6.66%
2018.2	9.43%	3.09%	6.34%
2018.3	9.71%	3.06%	6.65%
2018.4	9.53%	3.27%	6.26%
2019.1	9.55%	3.01%	6.54%
2019.2	9.73%	2.78%	6.94%
2019.3	9.95%	2.29%	7.67%
2019.4	9.74%	2.26%	7.48%
2020.1	9.35%	1.89%	7.46%
2020.2	9.55%	1.38%	8.17%
2020.3	9.52%	1.37%	8.15%
2020.4	9.50%	1.62%	7.87%
2021.1	9.71%	2.07%	7.63%
2021.2	9.48%	2.26%	7.22%
2021.3	9.43%	1.93%	7.50%
2021.4	9.59%	1.95%	7.65%
2022.1	9.38%	2.25%	7.12%
2022.2	9.23%	3.05%	6.18%
2022.3	9.52%	3.26%	6.26%
2022.4	9.65%	3.89%	5.75%
2023.1	9.64%	3.75%	5.89%
2023.2	9.40%	3.81%	5.59%
2023.3	9.53%	4.23%	5.30%
2023.4	9.62%	4.58%	5.04%
2024.1	9.62%	4.32%	5.29%
2024.2	9.97%	4.58%	5.40%
2024.3	9.58%	4.23%	5.35%
AVERAGE	11.35%	6.05%	5.30%
MEDIAN	10.75%	5.11%	5.47%

FLOTATION COST ADJUSTMENT

Company	Ticker	Date [1]	[11] Shares Issued (000)	[2] Offering Price	[3] Underwriting Discount [11]	[4] Offering Expense (\$000)	[5] Net Proceeds Per Share	[6] Total Flotation Costs (\$000)	[7] Gross Equity Issue Before Costs (\$000)	[8] Net Proceeds (\$000)	[9] Flotation Cost Percentage
CMS Energy Corporation	CMS	3/30/2005	23,000	12.25	0.429	325	11.81	10,187	281,750	271,563	3.62%
CMS Energy Corporation	CMS	10/7/2004	32,775	9.10	0.319	325	8.77	10,764	298,253	287,489	3.61%
								\$ 20,951	\$ 580,003	\$ 559,051	3.61%

[1] Offering Completion Date

[11] Underwriting discount is calculated as the market price minus the offering price when not explicitly given in the prospectus.

The flotation cost adjustment is derived by dividing the dividend yield by 1 - F (where F = flotation costs expressed in percentage terms), or by 0.9639, and adding that result to the constant growth rate to determine the cost of equity. Using the formulas shown previously in my testimony, the Constant Growth DCF calculation is modified as follows to accommodate an adjustment for flotation costs:

$$k = \frac{D \times (1 + 0.5g)}{P \times (1 - F)} + g$$

Company	Ticker	Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Expected Dividend Yield Adjusted for Flotation Costs	Value Line Earnings Growth	Yahoo! Finance Earnings Growth	Zacks Earnings Growth	Average Earnings Growth	Cost of Equity: Mean Growth Rate	Cost of Equity Adjusted for Flotation Costs
Amos Energy Corporation	ATO	\$ 3.22	\$ 133.50	2.41%	2.50%	2.59%	7.00%	7.40%	7.00%	7.13%	9.63%	9.72%
	NI	\$ 1.06	\$ 33.46	3.17%	3.30%	3.42%	9.50%	7.70%	7.00%	8.07%	11.36%	11.49%
	NWN	\$ 1.95	\$ 39.87	4.89%	5.00%	5.19%	6.50%	2.80%	n/a	4.65%	9.65%	9.84%
	OGS	\$ 2.64	\$ 70.80	3.73%	3.81%	3.96%	3.50%	5.00%	5.00%	4.50%	8.31%	8.46%
	SWX	\$ 2.48	\$ 72.18	3.44%	3.55%	3.68%	10.00%	4.00%	6.00%	6.67%	10.22%	10.35%
Spirax, Inc.	SR	\$ 3.02	\$ 65.59	4.60%	4.73%	4.90%	4.50%	6.36%	5.00%	5.29%	10.01%	10.19%
Mean											9.87%	10.01%
Median											9.83%	10.02%
Flotation Cost Adjustment (Mean)												0.14%
Flotation Cost Adjustment (Median)												0.18%

Notes:

[11] - [14] Sources: CMS Energy Corporation - Prospectus dated March 30, 2005 and Prospectus dated October 7, 2004.

[5] Equals [8]/[1]

[6] Equals [4] + ([1] x [3])

[7] Equals [1] x [2]

[8] Equals [7] - [6]

[9] Equals [6] / [7]

[10] Bloomberg Professional

[11] Bloomberg Professional, equals 30-day average as of September 30, 2024

[12] Equals [10] / [11]

[13] Equals [12] x (1 + 0.5 x [18])

[14] Equals [13] / (1 - Flotation Cost)

[15] Value Line

[16] Yahoo! Finance

[17] Zacks Investment Research

[18] Equals Average of [15], [16], [17]

[19] Equals [13] + [18]

[20] Equals [14] + [18]

[21] Equals [20] (Mean) - [19] (Mean)

[22] Equals [20] (Median) - [19] (Median)

PROJECTED CAPITAL EXPENDITURES AS A PERCENT OF 2023 NET PLANT
(\$ Millions)

		[1]	[2]	[3]	[4]	[5]	[6]	[7]
		2023	2025	2026	2027	2028	2029	Projected Cap. Ex. / 2023 Net Plant
Atmos Energy Corporation	ATO							
Capital Spending per Share			\$20.25	\$20.25	\$20.00	\$20.00	\$20.00	
Common Shares Outstanding			158.00	158.00	175.00	175.00	175.00	
Capital Expenditures			\$3,199.5	\$3,199.5	\$3,500.0	\$3,500.0	\$3,500.0	86.2%
Net Plant		\$19,607.0						
NiSource Inc.	NI							
Capital Spending per Share			\$6.50	\$6.50	\$7.00	\$7.00	\$7.00	
Common Shares Outstanding			450.00	450.00	450.00	450.00	450.00	
Capital Expenditures			\$2,925.0	\$2,925.0	\$3,150.0	\$3,150.0	\$3,150.0	68.7%
Net Plant		\$22,275.0						
Northwest Natural Gas Company	NWN							
Capital Spending per Share			\$9.50	\$9.50	\$10.00	\$10.00	\$10.00	
Common Shares Outstanding			42.00	42.00	45.00	45.00	45.00	
Capital Expenditures			\$399.0	\$399.0	\$450.0	\$450.0	\$450.0	64.0%
Net Plant		\$3,358.0						
ONE Gas, Inc.	OGS							
Capital Spending per Share			\$12.30	\$12.30	\$12.60	\$12.60	\$12.60	
Common Shares Outstanding			56.50	56.50	57.00	57.00	57.00	
Capital Expenditures			\$695.0	\$695.0	\$718.2	\$718.2	\$718.2	57.8%
Net Plant		\$6,135.2						
Southwest Gas Corporation	SWX							
Capital Spending per Share			\$12.50	\$12.50	\$12.00	\$12.00	\$12.00	
Common Shares Outstanding			73.00	73.00	75.00	75.00	75.00	
Capital Expenditures			\$912.5	\$912.5	\$900.0	\$900.0	\$900.0	60.19%
Net Plant		\$7,518.2						
Spire, Inc.	SR							
Capital Spending per Share			\$11.25	\$11.25	\$14.50	\$14.50	\$14.50	
Common Shares Outstanding			60.00	60.00	62.00	62.00	62.00	
Capital Expenditures			\$675.0	\$675.0	\$899.0	\$899.0	\$899.0	70.0%
Net Plant		\$5,778.9						
Consumers Energy Natural Gas Operations	Consumers							
Capital Expenditures [8]			\$1,200.0	\$1,200.0	\$1,200.0	\$1,200.0	\$1,200.0	61.71%
Net Plant [9]		\$9,723.5						

Notes:

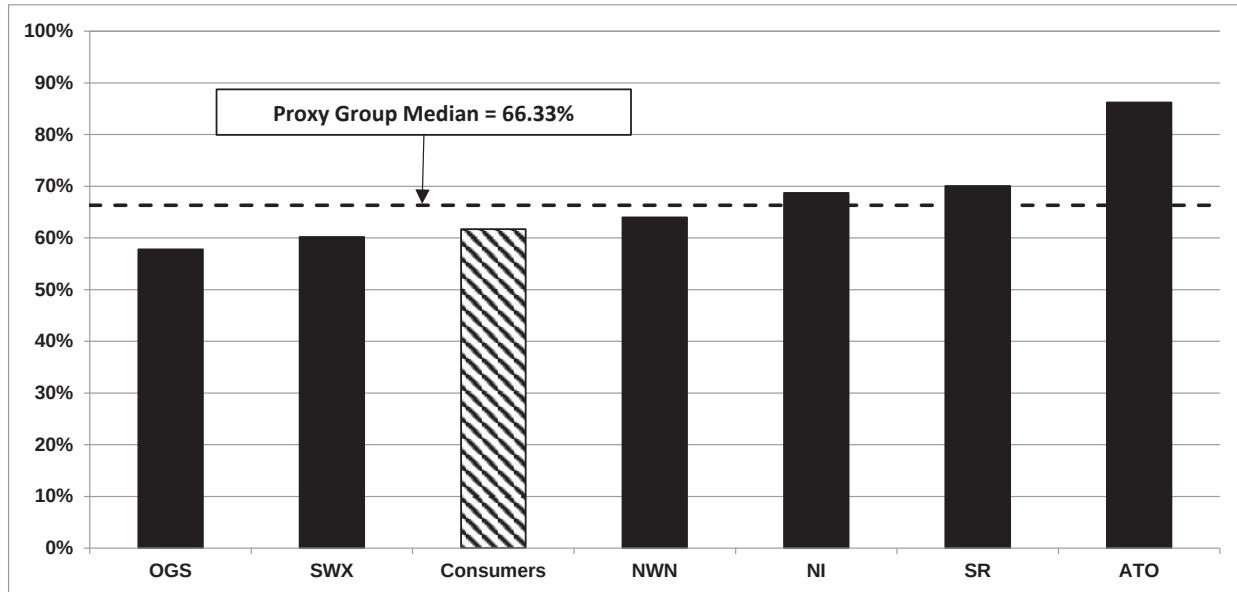
[1] - [6] Value Line, as of October 31, 2024

[7] Equals (Column [2] + [3] + [4] + [5] + [6]) / Column [1]

[8] Source: Exhibit A-42 (NPD-1), page 86

[9] Source: Exhibit No. A-2 (HLR-8), Schedule B-6, pg. 1

PROJECTED CAPITAL EXPENDITURES AS A PERCENT OF 2023 NET PLANT



Projected CAPEX / 2023 Net Plant

Rank	Company	Percent
1	ONE Gas, Inc.	OGS
2	Southwest Gas Corporation	SWX
3	Consumers Energy Natural Gas Operations	Consumers
4	Northwest Natural Gas Company	NWN
5	NiSource Inc.	NI
6	Spire, Inc.	SR
7	Atmos Energy Corporation	ATO
Proxy Group Median		66.33%
Consumers as % of Median		0.93

Notes:

Source: Exhibit A-14 (AEB-1), Schedule D-5, page 27, column [7]

COMPARISON OF
REGULATORY RISK ASSESSMENT

Company	Operating Subsidiary	State	Utility Type	Test Year Convention	[1]	[2]	[3]	[4]	[5]	[6]
					Revenue Decoupling	Formula-Based Rates	Revenue Stabilization		Overall Revenue Stabilization	Capital Cost Recovery
							Straight Fixed Variable	Rate Design		
Amos Energy Corporation	Amos Energy Corporation	Kansas	Gas	Historical	Partial	No	No	Yes	Yes	Yes
	Amos Energy Corporation	Kentucky	Gas	Fully Forecast	Partial	No	No	Yes	Yes	Yes
	Amos Energy Corporation	Louisiana	Gas	Historical	Partial	Yes	No	No	Yes	No
	Amos Energy Corporation	Mississippi	Gas	Historical	Partial	Yes	No	Yes	Yes	Yes
	Amos Energy Corporation	Tennessee	Gas	Historical	Partial	Yes	No	No	Yes	No
NISource Inc.	Amos Energy Corporation	Texas	Gas	Historical	Partial	Yes	No	Yes	Yes	Yes
	Northern Indiana Public Service Co.	Indiana	Electric	Fully Forecast	Partial	No	No	Yes	Yes	Yes
	Northern Indiana Public Service Co.	Indiana	Gas	Fully Forecast	No	No	No	No	No	Yes
	Columbia Gas of Kentucky Inc.	Kentucky	Gas	Fully Forecast	Partial	No	No	Yes	Yes	Yes
	Columbia Gas of Maryland Inc.	Maryland	Gas	Partially Forecast	Partial	No	No	Yes	Yes	Yes
Northwest Natural Gas Company	Columbia Gas of Ohio Inc.	Ohio	Gas	Partially Forecast	No	No	Yes	No	Yes	Yes
	Columbia Gas of Pennsylvania Inc.	Pennsylvania	Gas	Fully Forecast	Partial	No	No	Yes	Yes	Yes
	Columbia Gas of Virginia Inc.	Virginia	Gas	Historical	Partial	No	No	No	Yes	Yes
	Northwest Natural Gas Co.	Oregon	Gas	Fully Forecast	Partial	No	No	Yes	Yes	Yes
	Northwest Natural Gas Co.	Washington	Gas	Historical	No	No	No	No	No	No
ONE Gas, Inc.	Kansas Gas Service Co.	Kansas	Gas	Historical	Partial	No	No	Yes	Yes	Yes
	Oklahoma Natural Gas Co.	Oklahoma	Gas	Historical	Partial	Yes	No	Yes	Yes	No
	Texas Gas Service Co. Inc.	Texas	Gas	Historical	Partial	Yes	No	Yes	Yes	Yes
Southwest Gas Corporation	Southwest Gas Corporation	Arizona	Gas	Historical	Full	No	No	Yes	Yes	Yes
	Southwest Gas Corporation	California	Gas	Fully Forecast	Full	No	No	Yes	Yes	Yes
	Southwest Gas Corporation	Nevada	Gas	Historical	Full	No	No	Yes	Yes	Yes
Spire, Inc.	Spire Alabama Inc.	Alabama	Gas	Fully Forecast	Partial	Yes	No	Yes	Yes	No
	Spire Gulf Inc.	Alabama	Gas	Fully Forecast	Partial	Yes	No	Yes	Yes	No
	Spire Missouri Inc.	Missouri	Gas	Partially Forecast	Partial	No	No	Yes	Yes	Yes
Proxy Group Totals				Fully Forecast	9			Yes	22	Yes
				Partially Forecast	3			No	2	No
				Historical	12			% Yes	91.7%	% Yes
				% Forecast	50.0%					70.8%
Consumers Energy [7]				Projected	No	No	No	No	No	No

Notes:

- [1] Regulatory Research Associates, Rate Case History, Company Tariffs, Company Form 10-K.
[2] S&P Global Market Intelligence, Regulatory Focus: Adjustment Clauses, dated July 18, 2022. Operating subsidiaries not covered in this report were excluded from this exhibit.
[3] Company Form 10-K, Company Tariffs, S&P Capital IQ Pro
[4] Company Form 10-K, Company Tariffs, S&P Capital IQ Pro
[5] Equals IF(AND([3]=No, [4]=No, [5]=No), No, Yes)
[6] S&P Global Market Intelligence, Regulatory Focus: Adjustment Clauses, dated July 18, 2022.
[7] Data provided by the Company

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of)
CONSUMERS ENERGY COMPANY)
for authority to increase its rates for the)
distribution of natural gas and for other relief.)
_____)

Case No. U-21806

EXHIBITS
OF
JESSICA R. BYROM
ON BEHALF OF
CONSUMERS ENERGY COMPANY

December 2024

Schedule: B-5.3

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
 Summary of Actual and Projected Capital Expenditures
 (\$000)

Case No.: U-21806
 Exhibit No.: A-12 (JBR-1)
 Schedule: B-5.3
 Page: 1 of 3
 Witness: JRByrom
 Date: December 2024

Line No	(a) Description	(b)	(c)	(d)	(e)	(f)
		Historical Year 12 Mos Ended 12/31/2023	Projected Bridge Period			Projected Test Year 12 Mos Ending 10/31/2026
			12 Mos Ended 12/31/2024	10 Mos Ending 10/31/2025	22 Mos Ending 10/31/2025	
1	Customer Billing	111	1,078	12	1,090	0
2	Credit & Assistance	0	0	0	0	1,960
3	<u>Total Customer Experience & Operations Capital</u>	<u>111</u>	<u>1,078</u>	<u>12</u>	<u>1,090</u>	<u>1,960</u>

		Projected			
		10 Mos Ending 10/31/2024	12 Mos Ending 10/31/2025	12 Mos Ending 10/31/2026	34 Mos Ending 10/31/2026
4	Customer Billing	0	1,090	0	1,090
5	Credit & Assistance	0	0	1,960	1,960
6	<u>Total Customer Experience & Operations Capital</u>	<u>0</u>	<u>1,090</u>	<u>1,960</u>	<u>3,050</u>

Schedule: B-5.3

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
 Actual and Projected Capital Expenditures
 (\$000)

Case No.: U-21806
 Exhibit No.: A-12 (JRB-1)
 Schedule: B-5.3
 Page: 2 of 3
 Witness: JRByrom
 Date: December 2024

	(a)	(b)	(c)	(d)	(e)	(f)
		Historical Year	Projected Bridge Year		Projected Test Year	
Line No	Description	12 Mos Ended 12/31/2023	12 Mos Ended 12/31/2024	10 Mos Ending 10/31/2025	22 Mos Ending 10/31/2025	12 Mos Ending 10/31/2026
1	Customer Billing	111	1,078	12	1,090	0
	Labor	0	0	0	0	0
	Capitalized E&S	0	0	0	0	0
	Material	44	0	0	0	0
	Contractor	66	1,078	12	1,090	0
	Non-Labor Overhead	0	0	0	0	0
	Non-Labor Other	0	0	0	0	0
	Contingency	0	0	0	0	0
2	Credit & Assistance	0	0	0	0	1,960
	Labor	0	0	0	0	0
	Capitalized E&S	0	0	0	0	0
	Material	0	0	0	0	0
	Contractor	0	0	0	0	1,960
	Non-Labor Overhead	0	0	0	0	0
	Non-Labor Other	0	0	0	0	0
	Contingency	0	0	0	0	0
3	Total Customer Experience & Operations Capital	111	1,078	12	1,090	1,960
	Labor	0	0	0	0	0
	Capitalized E&S	0	0	0	0	0
	Materials	44	0	0	0	0
	Contractor	66	1,078	12	1,090	1,960
	Non-Labor Overhead	0	0	0	0	0
	Non-Labor Other	0	0	0	0	0
	Contingency	0	0	0	0	0

Schedule: B-5.3

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
 Actual and Projected Capital Expenditures
 (\$000)

Case No.: U-21806
 Exhibit No.: A-12 (JRB-1)
 Schedule: B-5.3
 Page: 3 of 3
 Witness: JRByrom
 Date: December 2024

		(a)	(b)	(c)	(d)	(e)
		Projected				
Line	Description	10 Mos Ending	12 Mos Ending	12 Mos Ending	34 Mos Ending	
No		10/31/2024	10/31/2025	10/31/2026	10/31/2026	
4	Customer Billing	0	1,090	0	1,090	
	Labor	0	0	0	0	
	Capitalized E&S	0	0	0	0	
	Material	0	0	0	0	
	Contractor	0	1,090	0	1,090	
	Non-Labor Overhead	0	0	0	0	
	Non-Labor Other	0	0	0	0	
	Contingency	0	0	0	0	
5	Credit & Assistance	0	0	1,960	1,960	
	Labor	0	0	0	0	
	Capitalized E&S	0	0	0	0	
	Material	0	0	0	0	
	Contractor	0	0	1,960	1,960	
	Non-Labor Overhead	0	0	0	0	
	Non-Labor Other	0	0	0	0	
	Contingency	0	0	0	0	
6	Total Customer Experience & Operations Capital	0	1,090	1,960	3,050	
	Labor	0	0	0	0	
	Capitalized E&S	0	0	0	0	
	Materials	0	0	0	0	
	Contractor	0	1,090	1,960	3,050	
	Non-Labor Overhead	0	0	0	0	
	Non-Labor Other	0	0	0	0	
	Contingency	0	0	0	0	

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
Summary of Actual & Projected O&M Expenses
(\$000)

Case No.: U-21806
Exhibit No.: A-37 (JRB-2)
Page: 1 of 4
Witness: JRByrom
Date: December 2024

(a)		(b)	(c)
Line No.	Description	Actual	Projected
		12-Mos Ending 12/31/2023	12-Mos Ending 10/31/2026
1	Billing & Payment	15,054	10,868
	Labor	2,391	2,448
	Material	842	824
	Contractor	6,664	1,546
	Non-Labor Overhead	-	-
	Non-Labor Other	5,157	6,050
2	Customer Interactions	21,634	20,978
	Labor	15,749	15,550
	Material	36	46
	Contractor	4,835	4,382
	Non-Labor Overhead	-	-
	Non-Labor Other	1,013	999
3	Total CXCO O&M Expenses	36,689	31,846
	Labor	18,141	17,998
	Material	878	870
	Contractor	11,499	5,928
	Non-Labor Overhead	-	-
	Non-Labor Other	6,171	7,049

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
 Summary of Actual & Projected O&M Expenses
 (\$000)

Case No.: U-21806
 Exhibit No.: A-37 (JRB-2)
 Page: 2 of 4
 Witness: JRByrom
 Date: December 2024

(a)		(b)	(c)
Line No.	Description	Actual	Projected
		12-Mos Ending 12/31/2023	12-Mos Ending 10/31/2026
1	Customer Billing	8,687	9,492
	Labor	2,072	1,928
	Material	840	824
	Contractor	666	707
	Non-Labor Overhead	-	-
	Non-Labor Other	5,109	6,032
2	Customer Payment Programs	6,368	1,376
	Labor	320	519
	Material	2	-
	Contractor	5,998	838
	Non-Labor Overhead	-	-
	Non-Labor Other	49	18
3	Total Billing & Payment O&M Expenses	15,054	10,868
	Labor	2,391	2,448
	Material	842	824
	Contractor	6,664	1,546
	Non-Labor Overhead	-	-
	Non-Labor Other	5,157	6,050

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
Summary of Actual & Projected O&M Expenses
Add Description
(\$000)

Case No.: U-21806
Exhibit No.: A-37 (JRB-2)
Page: 3 of 4
Witness: JRByrom
Date: December 2024

(a)		(b)	(c)
Line		Actual	Projected
No.	Description	12-Mos Ending 12/31/2023	12-Mos Ending 10/31/2026
1	Analytics & Outreach	2,656	2,325
	Labor	2,065	1,742
	Material	4	-
	Contractor	520	509
	Non-Labor Overhead	-	-
	Non-Labor Other	67	74
2	Business Customer Care	1,826	1,776
	Labor	1,557	1,474
	Material	1	-
	Contractor	235	258
	Non-Labor Overhead	-	-
	Non-Labor Other	34	44
3	Credit & Assistance	2,270	2,562
	Labor	1,544	1,713
	Material	10	46
	Contractor	534	651
	Non-Labor Overhead	-	-
	Non-Labor Other	183	152
4	Customer Contact Center	12,998	13,243
	Labor	10,029	9,940
	Material	21	-
	Contractor	2,255	2,595
	Non-Labor Overhead	-	-
	Non-Labor Other	693	708
5	Digital Customer Operations	1,884	1,072
	Labor	555	682
	Material	0	-
	Contractor	1,292	369
	Non-Labor Overhead	-	-
	Non-Labor Other	36	21
6	Total Customer Interactions O&M Expenses	21,634	20,978
	Labor	15,749	15,550
	Material	36	46
	Contractor	4,835	4,382
	Non-Labor Overhead	-	-
	Non-Labor Other	1,013	999

Case No.: U-21806
Exhibit No.: A-37 (JRB-2)
Page: 4 of 4
Witness: JRBByrom
Date: December 2024

Notes

	12-Mo Ending 2024	12-Mo Ending 2025	10-Mo Ending 2026
Annual inflation rates per Company witness Rayl	3.2%	2.4%	2.5%
Number of months in the period	12	12	10
Pro-rated inflation rate	3.2%	2.4%	2.1%

EXHIBIT A-38 (JRB-3)
IS CONFIDENTIAL AND
BEING FILED UNDER SEAL
WITH THE MPSC

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of)
CONSUMERS ENERGY COMPANY)
for authority to increase its rates for the)
distribution of natural gas and for other relief.)
_____)

Case No. U-21806

EXHIBITS
OF
AMY M. CONRAD
ON BEHALF OF
CONSUMERS ENERGY COMPANY

December 2024

OFFICER PLAN		
Category	2023 MEASURE	Weighting
Safety	Employee Safety (Recordable Incident Rate (70% weighting) & High-Risk Injuries (30% weighting) and Zero fatalities)	5%
People	Culture Index (Employee Empowerment, Employee Engagement and DEI)	5%
Customer	Customer Experience - CXi (Survey measuring Customer Experience)	5%
Reliability	Electric Reliability - SAIDI (System Average Interruption Duration Index)	5%
Price	Affordability (O&M Savings through Waste Elimination)	5%
Environmental	Methane Emission Reduction (Reduction of Methane Emissions through replacements of Mains and Services, and through implantation of gas venting protocols)	5%
Total Operational Goals		30%
Financial	Earnings (Earnings Per Share)	70%
Total Financial Goals		70%

NON-OFFICER PLAN		
Category	2023 MEASURE	Weighting
Safety	Employee Safety (Recordable Incident Rate (70% weighting) & High-Risk Injuries (30% weighting) and Zero fatalities)	8%
People	Culture Index (Employee Empowerment, Employee Engagement and DEI)	8%
Customer	Customer Experience - CXi (Survey measuring Customer Experience)	8%
Reliability	Electric Reliability - SAIDI (System Average Interruption Duration Index)	8%
Price	Waste Elimination (O&M Savings through Waste Elimination)	8%
Environmental	Methane Emission Reduction (Reduction of Methane Emissions through replacements of Mains and Services, and through implantation of gas venting protocols)	8%
Total Operational Goals		50%
Financial	Earnings (Earnings Per Share)	50%
Total Financial Goals		50%

2023 Plan Year						
	50% Threshold	75%	100% Target	125%	150%	175% Max
Employee Safety (Recordable Incidents Rate, High-Risk Injuries ¹ , & No fatalities ²)	a.1.65 b. 32	a.1.28 b.30	a.1.07 b.27	a.0.97 b.25	a.0.87 b.23	a.0.77 b.20
Culture Index (Empowerment, Employee Engagement & DEI. Average Results from semi-annual employee survey)	1 of 3 indexes at target	2 of 3 indexes at target	All 3 indexes at target	2 indexes at target & 1 index above target	1 index at target & 2 indexes above target	3 indexes above target
Customer Experience (Survey Measuring CXi)	66	68	73	74	75	80
Electric Reliability (SAIDI in minutes)	185	180	170	160	155	150
Waste Elimination³ (O&M Savings through Waste Elimination)	\$30M	\$35M	\$45M	\$50M	\$55M	\$65M
Methane Emission (Reduction through replacement of mains and services)	414MT	436MT	459MT	485MT	510MT	551MT

- 1 High-Risk = Recordable or non-recordable injury caused by a release of high energy
- 2 A fatality = zero payout for employee safety
- 3 The Company is not seeking recovery of this measure as it is financial in nature.

OFFICER PLAN		
Category	2024 MEASURE	Weighting
Safety	Employee Safety (Recordable Incident Rate & High-Risk Injuries (equally weighted) and Zero fatalities)	5.0%
People	Culture Index (Employee Empowerment, Employee Engagement and DEI)	5.0%
Customer	Customer Experience - CXi (Survey measuring Customer Experience)	5.0%
Reliability	Electric Reliability - SAIDI (System Average Interruption Duration Index)	5.0%
Price	Affordability (O&M Savings through Waste Elimination)	5.0%
Environmental	Methane Emission Reduction (Reduction of Methane Emissions through replacements of Mains and Services, and through implantation of gas venting protocols)	5.0%
Total Operational Goals		30%
Financial	Earnings (Earnings Per Share)	70%
Total Financial Goals		70%

NON-OFFICER PLAN		
Category	2024 MEASURE	Weighting
Safety	Employee Safety (Recordable Incident Rate & High-Risk Injuries (equally weighted) and Zero fatalities)	8.3%
People	Culture Index (Employee Empowerment, Employee Engagement and DEI)	8.3%
Customer	Customer Experience - CXi (Survey measuring Customer Experience)	8.3%
Reliability	Electric Reliability - SAIDI (System Average Interruption Duration Index)	8.3%
Price	Affordability (O&M Savings through Waste Elimination)	8.3%
Environmental	Methane Emission Reduction (Reduction of Methane Emissions through replacements of Mains and Services, and through implantation of gas venting protocols)	8.3%
Total Operational Goals		50%
Financial	Earnings (Earnings Per Share)	50%
Total Financial Goals		50%

2024 Plan Year						
	50% Threshold	75%	100% Target	125%	150%	175% Max
Employee Safety (Recordable Incidents Rate, High-Risk Injuries ¹ , & No fatalities ²)	a.1.76 b. 25	a.1.23 b.20	a. 0.96 b.13	a. 0.92 b.12	a. 0.86 b.11	a. 0.75 b. 10
Culture Index (Empowerment, Employee Engagement & DEI)	1 index at Target ³	2 index at Target ³	All 3 indexes at Target ³	2 indexes at Target &1 Index above Target	1 index at Target & 2 Indexes above Target	3 Indexes above Target
Customer Experience (Survey Measuring CXI)	64	67	69	71	75	81
Electric Reliability (SAIDI in minutes)	185	180	170	160	155	150
Affordability ⁴ (O&M Savings through Waste Elimination)	\$45M	\$55M	\$63M	\$66M	\$70M	\$74M
Methane Emission (Reduction through replacement of mains and services)	278 MT	290 MT	302 MT	335 MT	366 MT	375 MT

- 1 High-Risk = Recordable or non-recordable injury caused by a release of high energy
- 2 A fatality = zero payout for employee safety
- 3 Target = 2023 Q4 actual +2 points (Averaged results from semi-annual employee survey).
- 4 The Company is not seeking recovery of this measure as it is financial in nature.

MICHIGAN PUBLIC SERVICE COMMISSION

Consumers Energy Company
Target Pay Level Market Analysis
Non-officer

Case No.: U-21806
Exhibit No.: A-40 (AMC-2)
Page: 1 of 1
Witness: AMConrad
Date: December 2024

Exempt Jobs:
2023 Market study

Job Family	# of Employees	Avg. Annual Salary	Market Data	Avg. Salary vs. Market
ACCOUNTING	57	\$ 119,713	\$ 118,774	0.8%
ACCOUNTS PAYABLE & RECEIVABLE	10	\$ 110,566	\$ 113,107	-2.3%
ADMINISTRATIVE SUPPORT	27	\$ 82,377	\$ 83,273	-1.1%
ANALYTICS	74	\$ 105,353	\$ 118,512	-12.5%
ASSET PROCUREMENT	11	\$ 111,410	\$ 107,617	3.4%
BENEFITS	12	\$ 115,376	\$ 110,897	3.9%
BUSINESS DEVELOPMENT	16	\$ 153,694	\$ 172,482	-12.2%
BUSINESS PROCESS & SERVICE QUALITY	66	\$ 111,928	\$ 122,559	-9.5%
BUSINESS QUALITY MANAGEMENT	43	\$ 121,252	\$ 116,157	4.2%
BUSINESS STRATEGY & PLANNING	109	\$ 139,969	\$ 155,648	-11.2%
BUSINESS SYSTEMS ANALYSIS	26	\$ 108,516	\$ 106,798	1.6%
CAPITAL MARKETS	1	\$ 214,968	\$ 203,509	5.3%
CHEMICAL	3	\$ 141,224	\$ 138,126	2.2%
CIVIL	30	\$ 120,374	\$ 116,758	3.0%
COMMUNICATIONS	20	\$ 114,805	\$ 113,059	1.5%
COMPENSATION	5	\$ 133,897	\$ 126,437	5.6%
CONSTRUCTION PROJECT MANAGEMENT	91	\$ 152,035	\$ 145,579	4.2%
CORPORATE AFFAIRS	29	\$ 133,030	\$ 130,812	1.7%
CORPORATE GOVERNANCE	4	\$ 151,356	\$ 160,777	-6.2%
CO-WORKER CONNECTIONS	11	\$ 137,856	\$ 139,283	-1.0%
CREDIT & COLLECTIONS	1	\$ 89,256	\$ 98,664	-10.5%
CUSTOMER SERVICE	48	\$ 97,034	\$ 118,660	-22.3%
CYBER SECURITY	59	\$ 133,272	\$ 134,382	-0.8%
DATA SCIENCE	31	\$ 126,565	\$ 133,349	-5.4%
DATABASE ADMINISTRATION	4	\$ 130,068	\$ 136,222	-4.7%
DESIGN SERVICES	1	\$ 99,312	\$ 91,355	8.0%
DIVERSITY EQUITY & INCLUSION	7	\$ 116,225	\$ 114,366	1.6%
DOCUMENTATION & RECORD KEEPING	7	\$ 90,239	\$ 100,259	-11.1%
ELECTRICAL	190	\$ 116,740	\$ 121,291	-3.9%
EMPLOYEE RELATIONS	18	\$ 134,082	\$ 146,942	-9.6%
ENGINEERING & TECHNICAL LEADERSHIP	184	\$ 152,808	\$ 168,952	-10.6%
ENVIRONMENTAL & EMPLOYEE HEALTH & SAFETY	67	\$ 122,660	\$ 125,669	-2.5%
ETHICS & COMPLIANCE	37	\$ 117,428	\$ 112,589	4.1%
EXPLORATION & PRODUCTION OPERATIONS	85	\$ 134,818	\$ 130,069	3.5%
FACILITIES MANAGEMENT & PLANNING	7	\$ 129,250	\$ 120,736	6.6%
FINANCIAL CONTROL	12	\$ 121,612	\$ 115,736	4.8%
FINANCIAL FORECASTING	80	\$ 129,339	\$ 123,312	4.7%
HR TECHNOLOGY	8	\$ 117,119	\$ 118,599	-1.3%
INDUSTRIAL	10	\$ 114,785	\$ 116,382	-1.4%
INFORMATION & TECHNOLOGY LEADERSHIP	61	\$ 176,882	\$ 188,536	-6.6%
INFORMATION & TECHNOLOGY MANAGEMENT	42	\$ 134,603	\$ 136,185	-1.2%
INTERNAL AUDIT	8	\$ 145,898	\$ 143,930	1.3%
INVESTOR RELATIONS	3	\$ 140,648	\$ 144,942	-3.1%
LABOR RELATIONS	10	\$ 114,526	\$ 122,415	-6.9%
LABORATORY SERVICES	22	\$ 112,214	\$ 114,111	-1.7%
LEARNING & DEVELOPMENT	78	\$ 105,004	\$ 107,389	-2.3%
MACHINE OPERATIONS	6	\$ 154,816	\$ 142,851	7.7%
MANUFACTURING PLANT MANAGEMENT	5	\$ 159,552	\$ 167,302	-4.9%
MARKEETING GENERALISTS	45	\$ 110,123	\$ 112,753	-2.4%
MECHANICAL	102	\$ 119,942	\$ 123,872	-3.3%
ORGANIZATIONAL DEVELOPMENT	11	\$ 115,905	\$ 123,060	-6.2%
PAYROLL	4	\$ 102,894	\$ 98,055	4.7%
PHYSICAL SECURITY	10	\$ 112,711	\$ 123,920	-9.9%
POWER GEN TRANSMISSION & DISTRIBUTION	284	\$ 125,126	\$ 129,781	-3.7%
PROCUREMENT	53	\$ 106,457	\$ 107,994	-1.4%
PROGRAM MANAGEMENT	32	\$ 127,771	\$ 135,002	-5.7%
PROJECT & PROGRAM MANAGEMENT	81	\$ 130,136	\$ 133,316	-2.4%
PROPERTY MANAGEMENT	1	\$ 108,432	\$ 116,209	-7.2%
RATES & REGULATION	15	\$ 127,956	\$ 132,005	-3.2%
REAL ESTATE MANAGEMENT	22	\$ 109,952	\$ 116,665	-6.1%
REGULATORY AFFAIRS	8	\$ 136,152	\$ 130,405	4.2%
RELATIONSHIP MANAGEMENT	37	\$ 137,901	\$ 130,545	5.3%
REPAIR & MAINTENANCE TRADES	20	\$ 129,395	\$ 128,588	0.6%
RISK MANAGEMENT	26	\$ 135,774	\$ 132,329	2.5%
SALES & MARKETING	29	\$ 139,183	\$ 133,779	3.9%
SOFTWARE DEVELOPMENT	17	\$ 118,806	\$ 123,078	-3.6%
SOFTWARE PRODUCT ENGINEERING	182	\$ 125,398	\$ 134,835	-7.5%
SUPPLY CHAIN PLANNING & OPERATIONS	46	\$ 113,269	\$ 111,316	1.7%
SYSTEMS ADMINISTRATION & REPORTING	11	\$ 130,667	\$ 124,606	4.6%
SYSTEMS ARCHITECTURE	25	\$ 144,929	\$ 143,783	0.8%
SYSTEMS OPS & PRODUCTION CONTROL	10	\$ 110,416	\$ 110,771	-0.3%
TALENT ACQUISITION	9	\$ 126,773	\$ 125,210	1.2%
TAX	14	\$ 143,069	\$ 131,567	8.0%
TECHNICAL ANALYST	217	\$ 108,986	\$ 112,293	-3.0%
TECHNOLOGY SUPPORT	17	\$ 102,950	\$ 111,194	-8.0%
TELECOM & INTERNET	5	\$ 114,734	\$ 128,597	-12.1%
TREASURY	5	\$ 164,309	\$ 146,701	10.7%
UTILITIES OPERATIONS	361	\$ 132,275	\$ 131,725	0.4%
WAREHOUSING & DISTRIBUTION	18	\$ 106,536	\$ 102,292	4.0%
WORKFORCE ANALYTICS	3	\$ 167,512	\$ 174,026	-3.9%

Non-Exempt:
2023 Market study

Job Family	# of Employees	Avg. Annual Salary	Market Data	Avg. Salary vs. Market
ACCOUNTING	5	\$ 73,715	\$ 75,490	-2.4%
ACCOUNTS PAYABLE & RECEIVABLE	81	\$ 62,168	\$ 61,947	0.4%
ADMINISTRATIVE SUPPORT	50	\$ 62,308	\$ 53,256	14.5%
ASSET PROCUREMENT	3	\$ 64,743	\$ 65,382	-1.0%
BENEFITS	3	\$ 74,103	\$ 72,248	2.5%
BUSINESS PROCESS & SERVICE QUALITY	15	\$ 72,882	\$ 69,642	4.4%
CREDIT & COLLECTIONS	5	\$ 58,885	\$ 63,268	-7.4%
CUSTOMER SERVICE	28	\$ 60,870	\$ 65,995	-8.4%
CYBER SECURITY	15	\$ 53,792	\$ 67,252	-25.0%
DOCUMENTATION & RECORD KEEPING	14	\$ 62,451	\$ 63,124	-1.1%
EMPLOYEE RELATIONS	5	\$ 65,079	\$ 58,977	9.4%
ENGINEERING TECHNOLOGISTS & TECHNICIANS	310	\$ 80,717	\$ 87,495	-8.4%
ENVIRONMENTAL & EMPLOYEE HEALTH & SAFETY	4	\$ 62,634	\$ 51,633	17.6%
ETHICS & COMPLIANCE	34	\$ 66,151	\$ 71,911	-8.7%
FACILITIES MANAGEMENT & PLANNING	2	\$ 71,136	\$ 66,885	6.0%
HEAVY EQUIPMENT & CONSTRUCTION TRADES	4	\$ 59,717	\$ 58,293	2.4%
LABORATORY SERVICES	33	\$ 70,448	\$ 80,861	-14.8%
LEGAL PROFESSIONALS	4	\$ 85,628	\$ 88,962	-3.9%
MACHINE OPERATIONS	92	\$ 69,988	\$ 75,895	-8.4%
PAYROLL	14	\$ 60,014	\$ 59,672	0.6%
POWER GEN TRANSMISSION & DISTRIBUTION	119	\$ 66,576	\$ 68,390	-2.7%
PROCUREMENT	12	\$ 65,986	\$ 72,362	-9.7%
PROJECT & PROGRAM MANAGEMENT	149	\$ 75,996	\$ 81,315	-7.0%
PROPERTY MANAGEMENT	8	\$ 59,725	\$ 65,352	-9.4%
REGULATORY AFFAIRS	15	\$ 68,205	\$ 73,363	-7.6%
REPAIR & MAINTENANCE TRADES	24	\$ 74,436	\$ 71,102	4.5%
SALES & MARKETING	2	\$ 73,008	\$ 61,351	16.0%
TALENT ACQUISITION	1	\$ 65,832	\$ 57,989	11.9%
UTILITIES OPERATIONS	71	\$ 71,769	\$ 74,855	-4.3%
WAREHOUSING & DISTRIBUTION	3	\$ 53,054	\$ 65,704	-23.8%

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
Summary of Actual & Projected O&M Expenses
Annual Employee Incentive Compensation
(\$000)

Case No.: U-21806
Exhibit No.: A-41 (AMC-3)
Page: 1 of 2
Witness: AMConrad
Date: December 2024

(a)		(b)	(c)
Line No.	Description	Actual 12-Mos Ended 12/31/2023	Projected 12-Mos Ending 10/31/2026
1	Officer	613	560
	Labor	613	560
	Material	0	0
	Contractor	0	0
	Other	0	0
	Business Expenses	0	0
2	Non-Officer	1021	986
	Labor	1021	986
	Material	0	0
	Contractor	0	0
	Other	0	0
	Business Expenses	0	0
3	Total "Annual Incentive" O&M Expenses	1634	1546
	Labor	1634	1546
	Material	0	0
	Contractor	0	0
	Other	0	0
	Business Expenses	0	0

MICHIGAN PUBLIC SERVICE COMMISSION
Consumers Energy Company
Summary of O&M Expenses Projected Using Inflation
Annual Incentive
(\$000)

Case No.: U-21806
Exhibit No.: A-41 (AMC-3)
Page: 2 of 2
Witness: AMConrad
Date: December 2024

Line No.	(a) Description	(b) Actual 12 Mos Ended Dec 31, 2023	(c) Base O&M for Merit & Inflation 12 Mos Ended Dec 31, 2023	(d) Merit & Inflation 12 Mos Ending Dec 31, 2024	(e) Base O&M for Merit & Inflation 12 Mos Ending Dec 31, 2024	(f) Merit & Inflation 12 Mos Ending Dec 31, 2025	(g) Base O&M for Merit & Inflation 12 Mos Ending Dec 31, 2025	(h) Merit & Inflation 10 Mos Ending Oct 31, 2026	(i) Other Adjustments	(j) Projected O&M 12 Mos Ending Oct 31, 2026
1	Officer	613	613	20	536	13	548	11	(97)	560
	Labor	613	613	20	536	13	548	11	(97)	560
	Material			0		0		0		0
	Contractor			0		0		0		0
	Other			0		0		0		0
2	Business Expenses			0		0		0		0
	Non-Officer	1,021	1,021	33	944	23	967	20	(110)	986
	Labor	1,021	1,021	33	944	23	967	20	(110)	986
	Material			0		0		0		0
	Contractor			0		0		0		0
3	Other			0		0		0		0
	Business Expenses			0		0		0		0
	Total "Annual Incentive" O&M Expenses	1,634	1,634	52	1,480	36	1,515	32	(207)	1,546
	Labor	1,634	1,634	52	1,480	36	1,515	32	(207)	1,546
	Material	0	0	0	0	0	0	0	0	0
	Contractor	0	0	0	0	0	0	0	0	0
	Other	0	0	0	0	0	0	0	0	0
	Business Expenses	0	0	0	0	0	0	0	0	0

Notes

12-Mo Ending 2024		12-Mo Ending 2025		10-Mo Ending 2026	
Annual inflation rates per Company witness Rayl		3.2%		2.5%	
Number of months in the period		12		10	
Pro-rated inflation rate		3.2%		2.4%	
				2.1%	

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of)
CONSUMERS ENERGY COMPANY)
for authority to increase its rates for the)
distribution of natural gas and for other relief.)
_____)

Case No. U-21806

EXHIBIT
OF
NEAL P. DREISIG
ON BEHALF OF
CONSUMERS ENERGY COMPANY

December 2024

The logo for Consumers Energy, featuring the company name in a bold, sans-serif font, with a stylized white swoosh or arc above the text.

Natural Gas Delivery Plan

2025 – 2035

Revision 5

Date: December 1, 2024

Document Owner: Executive Director – Gas Strategy & Projects

2025 – 2035



Natural Gas Delivery Plan

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Natural Gas Delivery Plan

Acronyms

AGA – American Gas Association

AMI – Advanced Metering Infrastructure

AMR – Automated Meter Reading

API – American Petroleum Institute

ARMA – Association of Records Managers and Administrators

Bcf – Billion Cubic Feet

BYOD – Bring Your Own Device

C&I – Commercial and Industrial

CAGR – Compounded Annual Growth Rate

CARE Program - Consumers Affordable Resource for Energy

CE – Consumer's Energy

CG – City Gate

CIP – Critical Infrastructure Protection

CO₂e – The number of metric tons of CO₂ emissions with the same global warming potential as one metric ton of another greenhouse gas

CoE – Center of Excellence

DIMP – Distribution Integrity Management Program

DR – Demand Response

ECAP – Enterprise Corrective Action Program

ECO – Enterprise Contractor Oversight

EIRP – Enhanced Infrastructure Replacement Program

ETR – Estimated Time of Restoration

FT – Firm Transport

GCM – Gas Communication Module

GCR – Gas Cost Recovery

GIS – Geographic Information System

GRN – Gamma-ray Neutron

GSMS – Gas Safety Management System

GTIE – Gas Technical Information Excellence

HCA – High-Consequence Area

HP – High Pressure

hp – Horsepower

IaaS – Infrastructure as a Service

IT – Information Technology

LAUF – Lost and Unaccounted for (gas)

LDCs – Local Distribution Companies

LFERW – Low Frequency Electric Resistance Welded

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MCA – Moderate Consequence Area

MMbtu – Million British Thermal Units

MMCFD – Million Cubic Feet per Day

MP – Medium Pressure

MPSC – Michigan Public Service Commission

NERC – North American Electric Reliability Corporation

O&M – Operations and Maintenance

OTSRA – Operational Technology Security Reference Architecture

PAAS – Platform as a Service

PHMSA – Pipeline & Hazardous Materials Safety Administration

PIPES – Pipeline Inspection, Protection, Enforcement, and Safety Act

Plan – Natural Gas Delivery Plan

psi – Pounds Per Square Inch

psig – Pounds Per Square Inch Gauge

PSMS – Pipeline Safety Management System

RCV – Remote-Control Valve

RM – Regulated Diaphragm Meter

RORs – Random Outage Rates

RNG – Renewable Natural Gas

RP – Recommended Practice

RTU – Remote Terminal Units

SaaS – Software as a Service

SEA – Statewide Energy Assessment, an MPSC report dated September 11, 2019 (Case No. U-20464)

SCADA – Supervisory Control and Data Acquisition

SCC – Stress Corrosion Cracking

SMB – Small Business, as described in the Company's gas demand response pilot

SP – Standard Pressure, also referred to as utilization pressure

TC – Top Connect Meter

TCF – Trillion Cubic Feet

TED-I – Transmission Enhancements for Deliverability and Integrity

TOD – Transmission Operated by Distribution

TP – Transmission Pressure

USM – Ultrasonic meters

VSR – Vintage Service Replacement

WC – Inches of Water Column

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Natural Gas Delivery Plan

Revision History

Revision	Approval Date	Revision Description
0	12/16/2019	Initial Document
1	12/11/2020	First Revision
2	12/01/2021	Second Revision
3	12/01/2022	Third Revision
4	12/01/2023	Fourth Revision
5	12/01/2024	Fifth Revision

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Natural Gas Delivery Plan

I. Executive Summary

A. Introduction

Consumers Energy Company's ("Consumers Energy" or the "Company") natural gas system serves Michigan safely, reliably, and affordably, providing energy for residential and business space heating, water heating, meal preparation, grain drying, industrial processes, and electricity generation.

Technological changes and environmental concerns create a time of unprecedented change in the energy industry. Consumers Energy embraces these challenges as opportunities for the coming decades by carefully planning for the future.

This annually updated *Natural Gas Delivery Plan* ("NGDP" or the "Plan") maps the Company's vision to safely serve customers with natural gas for the next 10 years. The Company's Commission-approved *Clean Energy Plan*, along with the *Electric Distribution Infrastructure Investment Plan* chart the path for its electric business.

Natural gas is fundamental for keeping customers warm in colder months, and delivering reliable and affordable energy for Michigan's businesses and high heat industrial processes. The Plan is founded on the Company's commitment to providing safe, affordable, reliable, and increasingly clean natural gas for Michigan.

The Plan reflects the Michigan Public Service Commission's ("MPSC" or the "Commission") previous Orders in which Consumers Energy received insights on the natural gas system through the 2019 Statewide Energy Assessment ("SEA"), and also from the outcome of the Company's latest gas rate case, Case No. U-21490.

In updating this Plan, Consumers Energy weighed input from peer gas utilities, industry experts, MPSC staff, and other key external stakeholders to best understand how to serve customers and the State of Michigan.

The Plan outlines the next decade of investments in natural gas infrastructure, planning for natural gas supply and demand, and operational changes in accordance with the industry best practice of a Pipeline Safety Management System ("PSMS") protocol from the American Petroleum Institute ("API") Recommended Practice ("RP") 1173, or as Consumers Energy identifies it, as an expanded Gas Safety Management System ("GSMS").

Four key external drivers are critical to the natural gas business future:

External Drivers	Key Factors
Safety	Employees, customers, and the public must safely co-exist with natural gas assets. That means Consumers Energy must anticipate risks and mitigate them proactively.
Increasing Regulation	Safety incidents across the nation's gas infrastructure and changing policies regarding carbon and methane emissions continue to present new rules and increased regulatory oversight at the state and federal levels.
Changing Supply and Demand Patterns	The plan anticipates domestic natural gas supply growth adequate to meet increases in long-term demand, enabled by mid-stream investment. This will limit real commodity price increases over the longer term as the North American natural gas market expands.
Environmental Focus	The impact of natural gas use on climate change through carbon emissions and methane emissions is becoming a focal point of environmentally conscious customers, regulators and other stakeholders as coal-based emissions from electric generation continue a downward trend.

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Natural Gas Delivery Plan

The Plan documents the Company's analysis and stakeholder input on these drivers and is built on the following four objectives that provide flexibility to adapt and perform as an energy provider that customers, regulators, and the people of Michigan can count on.

Objectives	Natural Gas Delivery Plan Outcomes
Safe	Ensure the safety of customers and the communities we serve by maintaining pace of retiring vintage materials throughout the gas system to reduce risk of incidents that could adversely affect the public, customers, and employees or contractors.
Reliable	Improved reliability, resilience, and system flexibility in preparation for more variable climate patterns, variable supply sourcing options, and regulatory and maintenance activities, with improved equipment reliability.
Affordable	Stable, predictable, and reasonable total bills, including gas asset investment costs, the commodity costs of natural gas, and costs to support additional regulatory requirements.
Clean	Reduction of the Company's and its customers' contribution to climate change through gas system decarbonization. Gas system decarbonization will include options for reducing methane emissions across the delivery system and investment in renewable natural gas to help customers offset emissions associated with natural gas use.

Throughout the development of this Plan, the gathering of stakeholder input, and the SEA report, the Company considered the long-term future of the natural gas business along with the potential outcomes of current trends. The resulting plan informs shorter-term activities and regulatory filings to best serve customers.

The Plan will guide the Company's actions today, and provide an evolving framework to monitor initial assumptions, gather new stakeholder input, adjust to potential new expectations for the future, and remain on a transparent pathway to a safe, reliable, affordable, and clean natural gas system for Michigan.

B. Consumers Energy's Natural Gas System

The Company's natural gas system serves approx. 1.8 million customers across Michigan's lower peninsula and is comprised of four Asset Classes: Storage, Compression, Transmission, and Distribution.

Natural gas follows this flow through the Company's system in the following way:

- Consumers Energy receives gas supply into its transmission pipelines that operate between 400–1,185 pounds per square inch ("psi"), which are considered transmission pressure ("TP") lines.
- Compressor stations are used to increase the pressure of natural gas for transportation in the system and for withdrawal from or injection into storage fields.
- City gate stations move gas from the transmission pipeline system to feed distribution mains that operate as high-pressure ("HP") lines between 60–400 psi and medium pressure ("MP") lines between 2–60psi.
- Gas is then routed throughout the distribution system and delivered to residential and business customers that operate on MP lines, and standard-pressure ("SP") lines at less than 1 psi.

An illustration of a typical natural gas system layout is shown in Figure 1 with system statistics listed in [Appendix A](#).

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Key attributes and focuses across the primary asset classes include the following:

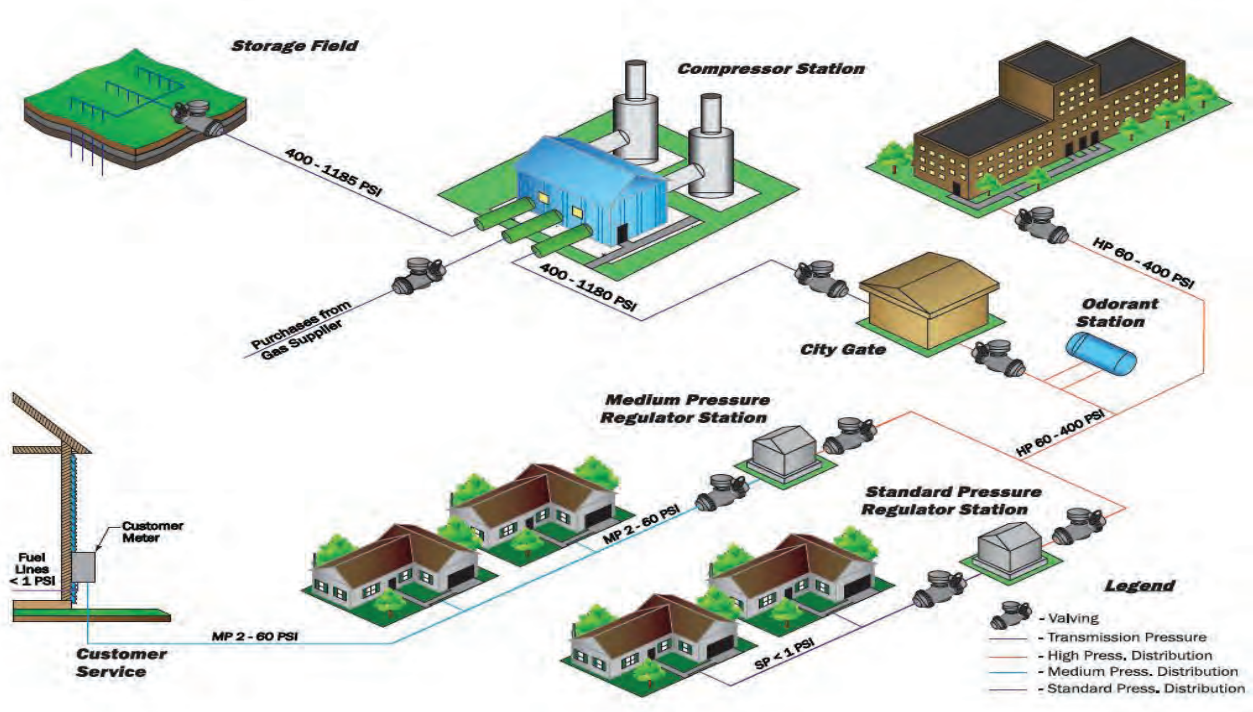
Storage: Storage assets play an important role in customer affordability and system resiliency. The Plan calls for execution of well inspection, well rehabilitation, increased remote well monitoring, and strategic new well drilling to optimize storage fields. This work increases efficiency and resiliency while lowering risk and cost.

Compression: Gas compression assets inject gas into and withdraw gas from storage fields, inject gas onto the Company's system from interstate pipelines, and boost transmission and distribution gas pressures seasonally. The Plan outlines how the compression fleet is optimized, which may include the addition of certain equipment for reliability, and retirement of antiquated compression assets.

Transmission: Gas transmission pipelines are the 'expressways' of the gas system, transmitting large quantities of gas at high pressures in large diameter pipes ranging from 4 inches to 36 inches. The Company's goal is to meet the capacity needs of Michigan as well as to optimize the transmission system in terms of age, materials, and technology to ensure public safety.

Distribution: The distribution system includes some of the Company's oldest facilities that are situated closest to customers. Therefore, replacing aging infrastructure to reduce risk and expanding remote monitoring in this area is a critical focus.¹

Figure 1: Typical Natural Gas System Layout



¹ U.S. Department of Transportation, Gas Distribution System Annual Report for Calendar Year 2023, submitted 03/12/2024.

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C. Pipeline Supply

Consumers Energy's system accesses seven interstate pipelines and one major intrastate pipeline.

This interconnectivity provides diverse access to supply from Appalachia, the Rockies, Canada, the Gulf Coast, and Mid-Continent production basins.

Interstate pipeline supply into Consumers Energy's system generally ranges from 600 million cubic feet per day ("MMCFD") to 1,400 MMCFD. Overall, pipeline supply is required to fill storage in the summer season while meeting customer demand.

A mix of pipeline supply and storage supply withdrawals are used during the winter season to ensure reliability and affordability to customers.

D. Operational Capabilities

The Plan requires essential operational capabilities in the areas of people, process, and technology to ensure 10-year goals and outcomes are achieved.

People

Consumers Energy is focused on ensuring the Company has the right people, with the right skills and culture, at the right place and time. To deliver on this vision, the Company is focusing on creating the right employee experience, attracting and retaining qualified and talented candidates, ensuring the right skills are there for the right jobs, and make certain a diverse, equitable, and inclusive workforce.

Process

To ensure the Company continues to best position itself for the future uncertainties, it will also assess operating models (e.g., governance, roles, responsibilities, structure, ways of working) and will adjust as required. Primary operating models include the CE Way and Gas Safety Management Systems. See *Operational Capabilities* below for further discussion.

Technology

To fully enable the goals and outcomes of the Plan, the Company invests in digital capabilities to keep assets safe, secure, operating, and maintained. Key technologies involve monitoring capabilities, improving data analytics, physical and cyber security upgrades, and incorporating more predictive capabilities. See *Technology* below for planned digital investments.

E. Climate Goals

The Company is committed to reducing fugitive methane and carbon emissions from the delivery system, while also better understanding the emissions from the natural gas upstream suppliers and end-use customers. This commitment is demonstrated in the Company's Scope 1 net zero methane emissions goal by 2030 and Scope 3 customer net zero carbon emissions goal by 2050. These goals align with the MI Healthy Climate Plan and Federal Executive Order ("EO") 14008.

Please see *Gas System Decarbonization* for additional discussion.

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Natural Gas Delivery Plan



II. Consumers Energy Natural Gas Delivery Plan

A. Vision Statement

The Company's vision is to ***deliver safe, reliable, and affordable natural gas to our customers while transforming the system to deliver cleaner fuels for a decarbonized and equitable future.***

B. Objectives

The Plan has four objectives to guide future investment decisions across the full system of storage, compression, transmission, and distribution. These objectives are: Safe, Reliable, Affordable, and Clean. Consumers Energy will include energy and environmental justice as an additional key objective in future revisions.

These objectives help prioritize investment decisions based on factors such as risk, cost, and various impacts to the customer to ensure successful outcomes for the Plan.

The Plan reflects a thorough analysis of the natural gas system, the natural gas commodity market, trends and practices across the industry, as well as customer trends. Consumers Energy intends to routinely review the inputs and assumptions that led to the creation of the Plan, update it as appropriate, and continue to share the Company's vision with stakeholders across Michigan.

1. SAFE

The **safety** of employees, customers, the public, and the system is the Company's top priority. It is critical the Company protects not only customers, but the communities served. To ensure a safe system, the following focus areas remain paramount:

- Reduce system risk to ensure the safety of the community and our customers.
- Focusing on process enhancements to improve gas system safety.
- Enhancing reliability and expanding 24/7 monitoring of the system.
- Modernizing the entire natural gas system, including the remediation of distribution and transmission assets, and replacing higher-risk vintage distribution mains and services.
- Using remote control, real-time data monitoring, probabilistic risk modeling to better identify safety concerns across all asset classes.

The Company is also placing an emphasis on **best practices in GSMS** (API RP 1173), and **records management**. Consumers Energy will use operational metrics to measure factors spanning the safety of personnel, assets, processes, as well as physical and cybersecurity.

2. RELIABLE

Consumers Energy creates and maintain a **reliable** system through dependable assets, measured through metrics such as gas flow deliverability, and total system resilience. The Company issues a **resilient storage and market supply plan for peak demand days**, and proactively balances peak customer demand primarily with storage and use of EWR.

Considering the 2019 Ray incident, the SEA, and the need to ensure **energy delivery resiliency and system reliability**, the Company assesses the system's ability to adapt to winter single failures, and the agility needed to respond to potential changes in the natural gas market environment and connected systems.

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The American Gas Foundation² provides definitions for both resilience and reliability as follows:

- **Resilience** is defined as *a system's ability to prevent, withstand, adapt to, and quickly recover from a high-impact, low-likelihood event such as a major disruption in a transmission pipeline.*
- **Reliability** is defined as *a system's ability to maintain energy delivery under standard operating conditions, such as the normal fluctuations in demand and supply.*

The Company agrees with those definitions and considers both reliability and resilience critical to the Company and its customers. This shows the value of Consumers Energy having an underground transportation network that is highly reliable and resilient in delivering energy without interruption.³

In addition, the Company assesses gas system resiliency needed due to potential climate change risk, as part of our publicly available [Climate Change Risk, Vulnerability and Resiliency Report](#)⁴.

3. AFFORDABLE

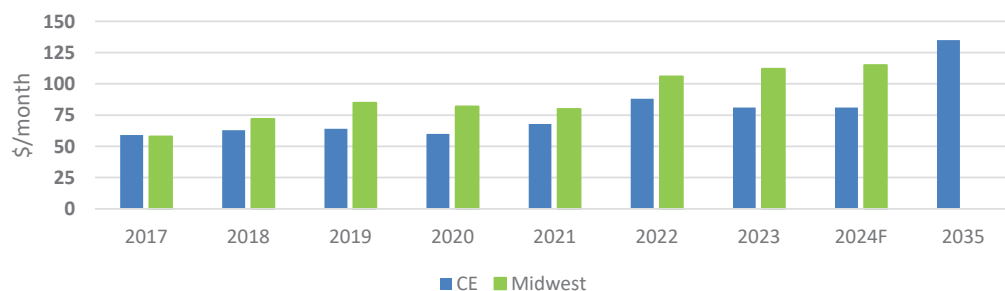
There is consistent **focus on delivering affordable** gas to customers with competitive and predictable prices. Consumers Energy analyzes average customer bills (total cost and cost per Mcf) against the Midwest average to manage total costs to the customer.

Customer bills are expected to increase over the next several years due to inflation, capital investments, and market forces. **The Company has a responsibility to keep bills as low as reasonably possible for all customers** and will work with customers to mitigate these rising costs as follows:

- The Company helps customers use less natural gas by providing energy-efficient products and resources. This includes winterization kits for homes and businesses and promoting customer assistance available.
- The Company offers energy waste reduction choices for all classes of natural gas customers.
- The Company offers tariff options to customers to create additional benefit of enabling decreased transportation costs for C&I customers during peak times.
- The Company is committed to supporting low-income customers through the Consumers Affordable Resource for Energy ("CARE") Program.

Figure 2 shows customer bill history in blue against the Midwest average and the average monthly residential bill per year forecast over the next 10 years.

Figure 2: Average Monthly Residential Customer Bill History and Forecast



² American Gas Foundation. [Building-a-Resilient-Energy-Future-Full-Report_FINAL_1.13.21.pdf \(gasfoundation.org\)](#)

⁴ [Climate Change Risk, Vulnerability and Resiliency Report](#)

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As shown in Figure 2, the average monthly bill increased approximately 5% year over year since 2017. This is below the Midwest average growth rate of approximately 10%. Moving forward, the residential bill is expected to grow approximately 5% per year through 2035.

The Company also ensures commodity costs are in line with market conditions. It will invest in the long-term infrastructure investment requirements needed to ensure safe, reliable, and compliant gas delivery while also maintaining competitive, affordable, and predictable customer bills.

4. CLEAN

Consumers Energy is committed to Michigan, its natural resources, and a sustainable climate for generations to come.

The Company's proposed *Clean Energy Plan*, as filed with and approved by the MPSC in June 2022, proposes to end coal use by 2025, increases renewables and energy efficiency, and meets customer needs with 90 percent clean energy resources. The *Clean Energy Plan* puts the Company on a trajectory to meet its net zero carbon emissions goal for the electric system by 2040.

In support of Michigan's Healthy Climate Plan 2050 carbon neutrality goal, as well as other national and international efforts, the Company is evaluating changes to the natural gas business to reduce, offset, and replace methane and carbon emissions, including customer end-use. The primary "clean" outcome is to achieve net-zero methane emissions by 2030, which is a first step and important component of the decarbonization plan.

Additionally, the Company committed in 2022 to expand on its clean energy goals to include all emissions, including upstream suppliers and downstream customers, that are part of the entire gas delivery system to be carbon neutral by 2050. Which includes an interim goal of 20% reduction in customer emissions by 2030. The initial step towards reducing customer end-use emissions is the launch of the MI Clean Air carbon offset voluntary program for residential, commercial, and industrial customers.

Key pathways to achieve net zero carbon emissions by 2050 include: energy waste reduction ("EWR"), carbon offsets, renewable natural gas ("RNG"), and potentially other decarbonization technologies in the future (e.g., hydrogen, carbon capture sequestration, electrification, geothermal, etc.). In 2024, the MI Clean Air Program was expanded to offer customers a voluntary option to offset emissions associated with natural gas use through renewable natural gas.

C. Alignment with Objectives, Goals, and Outcomes

The investments described in this Plan are necessitated by federal and state regulatory requirements, ensure safety, reliability, and the environment, while keeping customer bills affordable and predictable.

The Company will track these—as well as short-term operational metrics—by measuring and analyzing leading and lagging indicators, displayed below in Figure 3.

As the Company evolves its strategy, energy and environmental justice (EEJ) will be a meaningful component of how the Company plans investments. See *Operational Capabilities* below for how the Company is assessing EEJ and how the Company will ensure a clean and equity energy future for all customers and all communities.

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Figure 3: Natural Gas Delivery Plan Objectives, and Outcomes

Objective	Delivery Plan	Outcome	Year Ending 2024	2030 Target
Safe	Achieve zero incidents by replacing high-risk materials in service, distribution, and transmission	Implement probabilistic risk model	40%	100%
		Sustain GSMS maturity level	3.37	≥4.0
Reliable	Ensure supply reliability and system resilience by improving fleet reliability, leveraging storage, and using multiple interconnections	Maintain Gas Flow Deliverability	95%	95%
		Increase Resilience	88.7%	>91.5%
Affordable	Improve value through stable and predictable total bill growth	Average monthly residential bill < Midwest Average	+5.8%	<Midwest average
		Customer Satisfaction Index	1 st quartile	1 st quartile
		Increase Energy Waste Reduction	1.1%	1% year over year
Clean	Reduce gas system carbon equivalent emissions by eliminating methane leaks and implementing various technologies for gas system decarbonization	Reduce Scope 1 system methane emissions from 2012 baseline	30% reduced	100% reduced
		Reduce Scope 3 customer carbon emissions from 2022 baseline	2%	20%

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III. Consumers Energy Natural Gas Supply

A. Overview of Natural Gas Market

Over the past 15 years, advancements in unconventional drilling production methods alongside increased mid-stream investment turned the U.S. into a net exporter of natural gas.

The U.S. natural gas market continues to expand while accommodating changing producer priorities and global influences as export demand matures, with 2024 U.S. consumption estimated to achieve an all-time high of 33 Tcf. Over the long-term, natural gas prices are projected to remain affordable as U.S. natural gas production is viewed as capable of efficiently meeting demand growth due to favorable U.S. oil and natural gas shale production economics, market transparency, and a resilient interconnected interstate natural gas transportation system.

Michigan was well positioned to benefit from growth in shale production over the last 15 years. The largest U.S. shale production basin is in the nearby Marcellus and Utica Appalachian formations primarily in Ohio, Pennsylvania, and West Virginia⁵. Appalachian production accounted for approximately one third of the U.S. production in 2024 and has applied downward pressure to regional natural gas prices as local supply volumes have increased over time in concert with Michigan's U.S. leading natural gas storage capacity.

Amid this environment, Consumers Energy is well positioned for affordable, reliable, and diverse natural gas supply. Beyond ample regional supply, the Company's natural gas system has access to seven interstate pipelines and the most prolific natural gas production basins in the country, Canadian supply, a major intrastate pipeline interconnect and Michigan production.

Consumers Energy's class leading storage facilities, flexible interconnected system, and access to low-cost regional supply provide competitive advantage below benchmark commodity prices.

B. Consumers Energy's Natural Gas Supply Plan

The Company's GCR supply plans are detailed in a separate regulatory filing and are updated annually and include procurement details on the advantage Consumers' system provides to customers.

- Foundationally, the Company's GCR Plan seeks to lock in historically lower summer natural gas prices using storage investments to minimize winter procurement and associated price and supply risks.
- Typically, the Company procures about 75% of its GCR supply requirements in the summer months for injection into storage fields to meet winter GCR customer demand. Winter GCR sales constitute about 75% of total GCR annual sales. On the coldest days, storage can provide up to 80% of total customer demand, with the balance of demand served by the fixed (ratable) flowing pipeline supply.
- Storage provides price stability, lowers supply related risks, and generally lowers commodity costs in the winter months. It also provides system flexibility and resilience to enable reliable and timely delivery services by efficiently balancing variable customer load throughout the day.
- The Company, in conjunction with DTE Gas, plans to construct a transmission interconnect in 2025 between the two companies that will diversify the supply source, improving resiliency for both companies. This Project is further described below in the *Transmission Plan* section.

⁵ [Shale natural gas production in the Appalachian Basin sets records in first half of 2021 - U.S. Energy Information Administration \(EIA\)](#)

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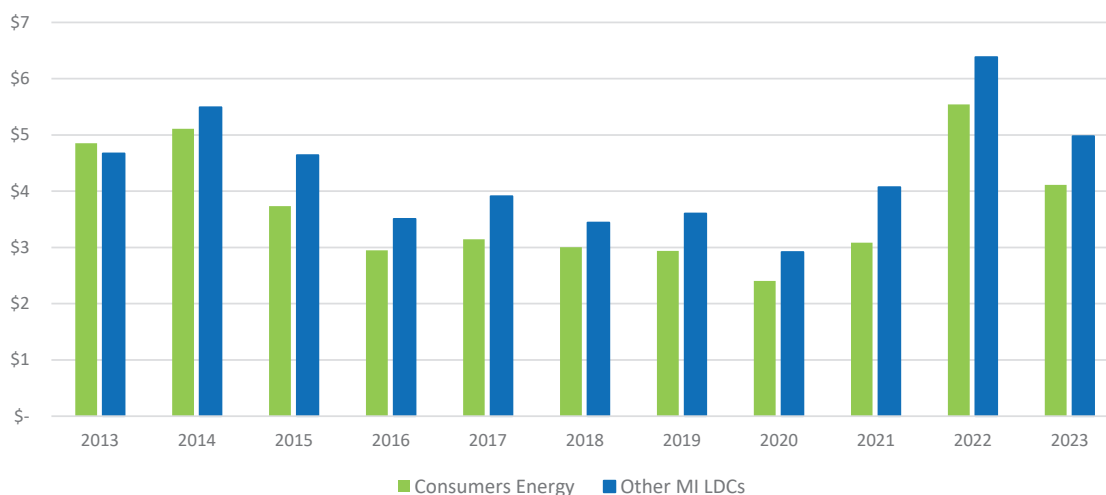
- The increase in regional and U.S. natural gas production and Midwest interstate pipeline capacity and interconnectivity transformed the area's supply fundamentals, substantially increasing the supply available at the Company's system interconnects, i.e., city gate supply. City gate supply has proven to be a reliable, resilient, and least-cost alternative to upstream purchases using interstate pipeline capacity. In the past, higher levels of transportation contracts were used to reduce supply availability, price volatility, and system deliverability risks.
- Over the past several decades, the Company made investments in its transmission pipe, storage, and compression assets to increase the deliverability of storage assets and overall system flexibility capable of balancing customer demand and less flexible pipeline supply. These investments along with the increase in regional supply have reduced the reliance on fixed cost transportation contracts born solely by the GCR customer class to about \$43 million per year.
- The Company's GCR Plan also includes provisions leveraging system investment capacity and flexibility to engage in value-added transactions based on emergent market opportunities to capture favorable price arbitrage economics lowering net GCR commodity costs for our customers. Further provisions allow for fixed price purchases of customer supply requirements when markets prices are at historically low levels.

The Company's system investments and commodity supply plan minimize natural gas price volatility and supply risk for customers. This has resulted in GCR customer commodity costs often lower on average than other Michigan regulated gas utilities over the past decade.

To ensure affordability, Consumers Energy will continue evaluating both GCR commodity and investment costs when considering the total delivered price of gas the customer pays.

Figure 4 shows the Company's annual average GCR price when compared to the average of the other Michigan Local Distribution Companies (LDC's) through 2023.

Figure 4: Average GCR Billing Factor Price for Consumers Energy and Other Michigan LDCs⁶



⁶ https://www.michigan.gov/documents/mpsc/gasrates_592543_7.pdf

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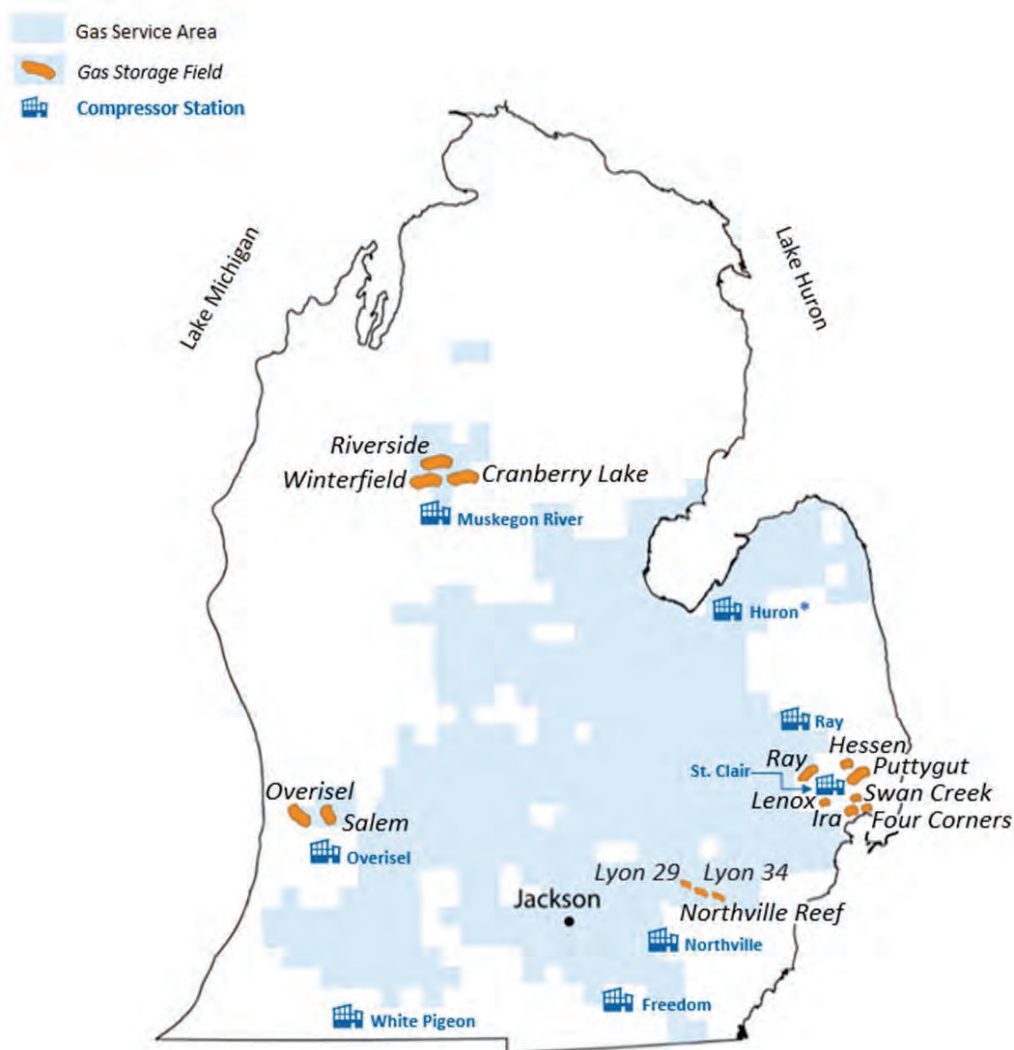
IV. Asset Classes

A. Storage Asset Plan

As a northern peninsula state, Michigan is geographically disadvantaged but geologically advantaged from a natural gas perspective.

Consumers Energy has 15 underground natural gas storage fields tapping into depleted hydrocarbon reservoirs deep underground through approximately 808 wells that tie into the Company's gas system. Figure 5 illustrates the location of the storage fields in relation to the compression assets.

Figure 5: Map of Michigan with Storage Field and Compressor Station Locations



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The Company's storage assets are used to inject and withdraw natural gas to meet Michigan's winter energy needs as a safe, reliable, resilient, and low-cost alternative to traditional firm interstate transportation capacity. **This storage capacity provides customer value** by enabling the Company to purchase gas at lower prices in the summer, and provides the capability to quickly adapt to customer demand and operational changes throughout the day, week, and month.

The flexibility of storage provides end user/transport suppliers, Gas Customer Choice suppliers, and the Company the **ability to purchase gas in ways that provide economic benefits while ensuring supply adequacy during periods of high demand**.

The storage fleet plays an important role during extreme weather situations and emergent operational changes by providing **quick access to high volumes of gas** that are geographically close to Michigan's demand centers at summer versus peak use pricing. Michigan's winter demand peaks are due to residential heating and therefore significantly affected by weather conditions. These demand peaks often coincide with increased electric generation demand.

Geographical **proximity of gas storage to customer load provides a systemic advantage** during the extremely cold winters. Growth of gas-fired generation to offset the retirements of coal-fired generation generally adds to the variation and peak needs during a day. For this reason, it is critical to maintain a safe and reliable storage asset portfolio for Michigan's electric supply.

All the Company's gas storage fields are accessed through vertical or horizontal wells and are connected to compressor stations by storage pipelines. Improvements in field performance depend on the performance of the entire integrated facility since the gas flows through to get to the transmission system.

The Company's efforts to optimize overall field performance through multiple efforts (i.e., new wells, well rehabilitation, strategic plugging, etc.) are **leading to better performing fields that allow for a more resilient overall system**. Since 2018, the Company reduced the number of storage wells, becoming more efficient and safer, while maintaining relatively consistent levels of working gas and capabilities. This provides quicker access to large quantities of natural gas than incremental pipeline supply purchases.

The storage fields provide approximately 154 Bcf of cyclic design capacity known as Working Gas. In addition to the natural gas cycled annually for customer use, a base level remains in place to ensure the field is adequately pressurized.

1. STORAGE ASSET CLASS 10-YEAR FOCUS

- Optimize aging storage asset infrastructure to lower operating cost, maintain deliverability, and decrease emissions points.
- Assess wells to determine if they are underperforming.
- Optimize storage asset risk, in alignment with PHMSA requirements, and performance by coordinating remediation, plugging and decommissioning underperforming wells, maintaining storage capability with new and more efficient wells, and updating existing storage equipment and lateral pipelines.
- Increase cycling of peaker fields for cold weather events as prescribed GCR filings.
- Invest in digital solutions for increased storage well monitoring.

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2. STORAGE ASSET MANAGEMENT

The Company's gas storage fields are segmented into baseload, intermediate, and peaking fields to serve different needs depending on daily, monthly, and seasonal demand deliverability requirements.

Storage fields in the system are used in three ways:

- **Baseload** storage fields run daily during the winter to meet base level demand and provide more efficient supply paths to the natural gas system further away from pipeline supply interconnects.
- **Intermediate** storage fields run during longer periods of higher demand.
- **Peaker storage fields** run during the extreme hours and days when demand changes quickly.

Table 1: Storage Field Types, Names, Working Gas, Base Gas, Total Gas Volumes, Number of Wells

Type	Storage Field Name	Working Gas Volume (Bcf)*	Base Gas Volume (Bcf)*	Total Gas Volume (Bcf)*	Number of Wells
Base	Winterfield	25.30	47.00	72.30	249
	Overisel	25.50	27.50	53.30	152
	Salem	11.60	18.90	30.50	71
	Cranberry	11.00	17.20	28.20	129
	Riverside	1.50	7.50	9.00	51
Intermediate	Hessen	13.50	3.48	16.98	24
	Puttygut	9.50	5.10	14.60	24
	Four Corners	2.39	1.39	3.78	6
	Swan Creek	0.42	0.23	0.65	1
	Ray	48.10	17.27	65.37	62
Peaker	Ira	2.00	4.25	6.25	15
	Lyon 29	1.23	0.95	2.18	3
	Lenox	1.20	2.03	3.23	11
	Lyon 34	0.70	0.66	1.36	5
	Northville Reef	0.50	0.72	1.22	5
*NOTE: All gas volumes are in MMcf at 14.73 psi dry pressure base.					

Each storage field has unique reservoir characteristics, including different cyclic capacities. This includes the ability to efficiently maximize storage utilization through leveraging the design and mechanical condition of the wells, transmission pipeline, attached compressor station, and system operating conditions such as weather. Additionally, supply can be sourced from storage to offset normal conditions in the event of high storage inventory.

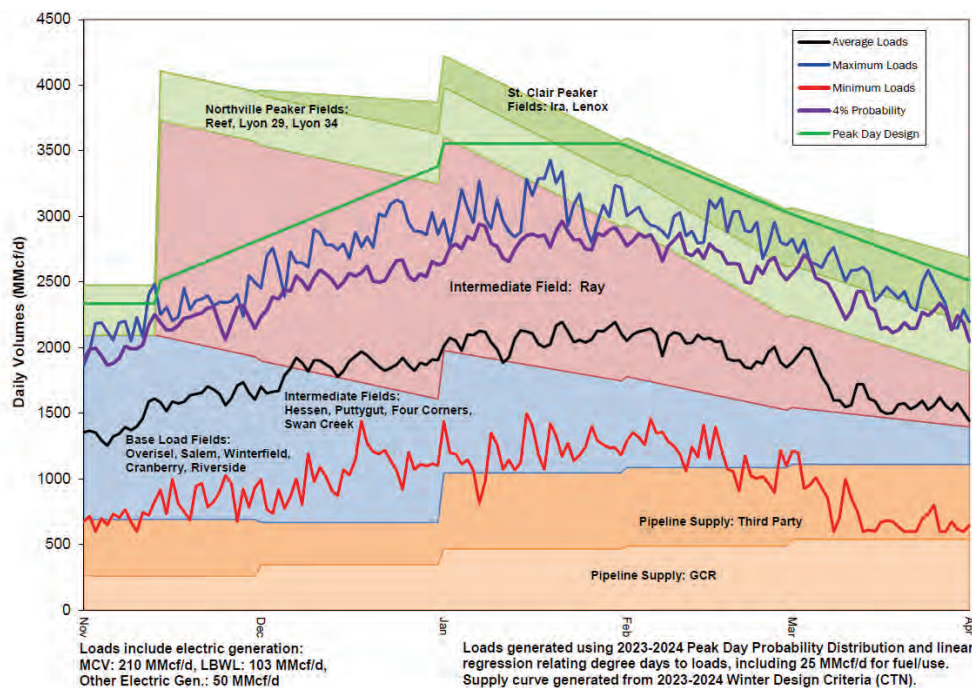
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Figure 6 displays the wide variety of customer demand that is considered as represented by the vertical space between the lime green (Minimum Loads) and the green (Design Peak Day) flows. Storage effectively allows for the variation in customer load as the Company can shut in or dispatch storage supply as needed throughout the day.

Figure 6: Daily Winter Design Capacity and Loads



The above supply curves (daily volumes) use assumptions, and therefore Figure 6 helps the reader conceptually understand how the Company's storage fields are used based on their capabilities.

Delivery rate is the flow rate of gas per time (usually daily) that a specific storage field or well can provide. Fields designated as **peakers**, such as Lyon 29, typically have high per-well delivery rate, but fewer overall wells, while **baseload** fields, such as Winterfield, tend to have higher well counts but lower overall deliverability on a per-well basis.

Fields designated as **intermediate** fields also have relatively high deliverability characteristics as well as significant cyclic capacity that makes them suitable for both peaking and baseload operations.

Storage field deliverability is directly tied to the amount of gas within them, and as gas is removed from them to supply customers, their deliverability rate capability (daily volumes) decreases.

Consumers Energy's historical storage usage follows a similar annual pattern: generally steady injection from April to October and withdrawal from November to March.

Injection and withdrawal plans consider the individual field capability and inventory as well as capability of the natural gas system and customer demand. Some fields take longer to fill or empty depending on their geology, inventory, and the use of compression. Their capability for accepting gas decreases as they are filled, and as field inventory decreases, the ability to provide supply decreases.

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During the withdrawal season, baseload fields provide early winter gas, followed by intermediate fields, such as Ray, and peaking fields when the temperatures drop and customer demand increases.

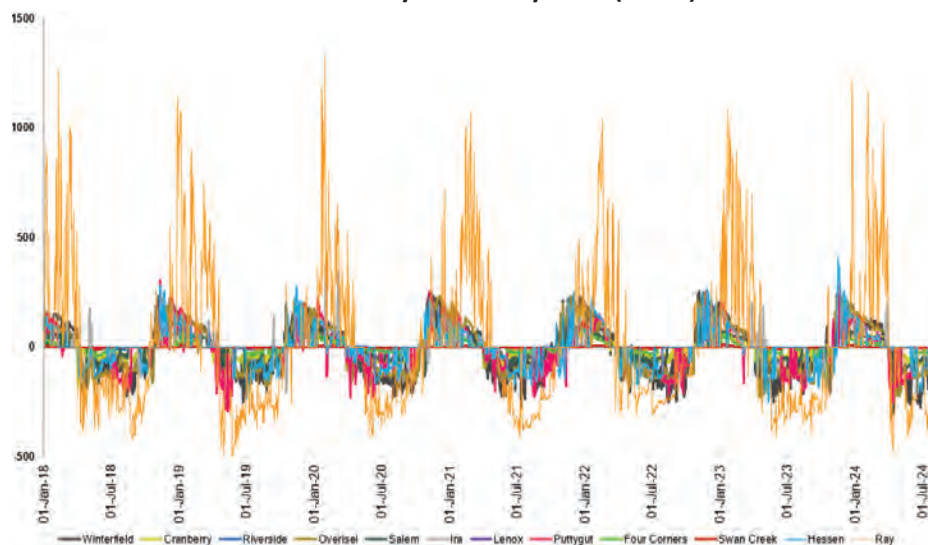
When temperatures rise, storage fields can be shut in for hours or days to adapt to customer load. This shut-in capacity can be used to provide system resilience in the event of unplanned outages on the system impacting supply.

The peaking fields serve multiple purposes:

- **Use during peak/design or near peak/design days.** Peaking fields may be needed when significant quantities of gas are required to meet customer demand. Because of its unique properties, the Ray field can be used as a peaker field when its inventory and gas conditioning equipment allow for it.
- These fields, depending on inventory, **can be used to reduce interstate pipeline supply** at the end of the winter season should excess capacity remain. They also **can provide supply capacity reserve off peak/design** for resiliency.
- The peaker fields **diversify storage supply and reduce reliance on Ray to meet peaking needs.** Additionally, they avoid relatively high fixed costs associated with interstate firm capacity and third-party storage. To aid in the reduction of our reliance on Ray, the Northville Gas Conditioning project is underway to help the fields provide quality gas when called upon.

Figure 7 shows that Ray uniquely fills the role of a peaker field (because it can deliver high rates of gas flow) and a baseload field because of its ability to hold a large volume of gas.

Figure 7: Daily Storage Field Injections (negative) and Withdrawals (positive) by Field from January 2018 - July 2024 (mmcf)



3. STORAGE WELL INTEGRITY PROGRAM

The key risk in storage field operations is degradation of the well, allowing gas stored in the reservoir below to escape and leak into the surrounding area.

Storage asset maintenance involves inspections (i.e., “logging”), repair, rehabilitation, and decommissioning for wells that provide less value to the customer. In addition, new wells with

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horizontal drilling technology can be added to the system to enhance access to the storage field to replace decommissioned wells.

Well Inspections

Consumers Energy inspects wells to determine their current state and to assess risk. The *Storage Asset Plan* complies with Federal Pipeline Safety regulatory requirements, and the applicable sections of API RP 1171.

These procedures govern operations, maintenance, integrity demonstration and verification, monitoring, threat and hazard identification, assessment, remediation, site security, emergency response and preparedness, and recordkeeping requirements for all existing underground natural gas storage facilities.

Integrity assessments of underground storage wells began in 2017 to support the 10-year compliance timeframe for completing all risk management activities by 2026. Based on these new requirements, all wells will have three current logs at the completion of the 10-year rehabilitation program.

Well Rehabilitation

The Company's 10-year Well Rehabilitation Program began in 2017, and is on track to have all wells remediated by 2026, following publication of the PHMSA interim final rule to address underground storage safety issues.

This Program involves remediating wells across Consumers Energy's storage portfolio to return them to 'like-new' condition as well as to comply with the baseline assessment period of the final rule from PHMSA. Primary benefits of the well rehabilitation include:

- Safer and more efficient long-term storage operation by reducing risks stemming from factors such as corrosion, gas migration, leaks, and well integrity issues.
- Improved well deliverability.

Well Reassessment/Preventative and Mitigative Measures Program

A well-specific Preventative & Mitigative (P&M) Measures Program is in development for each well that completes the Well Rehabilitation Program.

The current plan provides a 21-year outlook for well work that will continue to verify and monitor well integrity. This P&M Program began in 2024, as outlined by the seven-year assessment cycle prescribed by Federal underground storage requirements.

Items included in the P&M Program include specific activities depending on well type: facility, observation, and Class II disposal wells. Maintenance includes items such as logging frequency, fill depth checks, slickline cleanout of paraffin for wells with known paraffin issues, mechanical integrity testing (MIT) on wells with tubing and packer systems, and fluid checks on wells with known water levels.

New Well Drilling

The purpose of the New Well Drilling Program is to identify the best locations to drill new wells within the storage assets. Important considerations include: the sequencing of well logging, remediation, new drilling, and plugging to ensure continued deliverability.

Consumers Energy is taking a holistic system view that these activities follow a logical sequence. For example, new well drilling should precede well plugging and decommissioning if practical, to ensure short-term flow is not significantly compromised. Options to accelerate drilling should be considered, when possible, to ensure remediation, new well drilling, and plugging follow an optimal schedule.

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- Drilling new wells includes centralizing multiple wells to one location. This reduces overall operational maintenance and could reduce overall storage pipeline lengths.
- Using seismic mapping and reviewing of existing well information to place the well within the best part of the reservoir for increased deliverability while minimizing liquid production.
- Using safe drilling operations that provide a clean well for injection and withdrawal.
- New wells allow for drilling to current standards and potentially allow for plugging of aging wells that may present higher risk.

Well Re-Entry

A subset to the New Well Drilling Program has been initiated and focused on re-entering existing horizontal or deviated wells and drilling new drain holes. **Re-entry work is less expensive** than a full new well as the casing and pipeline are already installed.

Re-entering an existing well further **helps to improve field and well deliverability**, especially for wells that were drilled off structure or too deep on the structure. The additional rate can be used to either improve the field overall deliverability or allow for plugging of nearby vertical wells if they have integrity concerns but have sufficient flow rates to reduce risk without impacting storage field performance.

Additional benefits to the Program include using part of an existing well to plugback the original horizontal well and drilling additional drain holes to increase deliverability. This work uses wells with good integrity and coil tubing equipment that is a closed system.

Well Plugging

Well plugging is performed on certain wells, balancing risk with reliability and customer value.

- Plugging poor-performing, high-risk wells decreases maintenance expenses and reduces risk.
- After a well is plugged, the Company reduces its land footprint by restoring the area.
- Plugging a well reduces methane emissions by reducing maintenance related venting, and fugitive emissions associated with system piping and wellhead components.

Plugged Well Monitoring

In 2022, Consumers Energy contracted a third party to review all plugged wells within the Company's gas storage boundaries. The work included creating wellbore diagrams and classifying the plugging as *questionable*, *adequate*, or *exceptional*. This classification was used to develop monitoring plans for both the Company's plugged wells and third party plugged wells.

The plugged well monitoring plan for the Company's plugged wells will have a frequency based on the plugging classification. **The wells classified as *questionable* will be field monitored more frequently** than the wells classified as adequately plugged. The exceptionally plugged classified category will be field monitored the least frequency. The plugged well will be classified and a baseline field monitor will be completed within three years of plugging completion.

The plugged well monitoring plan for third party wells includes field monitoring for any potential gas leakage every five years for questionably plugged wells that don't have a bottom cement plug through the storage zone. These wells are drilled through the storage zone and are located within a quarter mile radius of a Consumers Energy well. Monitoring is limited to landowner or well owner cooperation.

This work will be recurring with a frequency based on the plugging classification and the evidence of gas leakage.

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Storage Lateral Pipeline Replacement

The purpose of the Storage Lateral Pipeline Replacement Program is to replace and upgrade storage laterals based on age, condition, relative risk, and association with the other gas storage programs.

Primary improvements anticipated from the program include:

- Installation of launcher and receiver barrels that allow for pipeline inspections.
- Potentially changing the pipeline length and size based on the new well drilling and well plugging programs.

These changes will help reduce risk while creating a more efficient path for gas flow to the larger natural gas system.

Northville Lyon 29/34 Liquid Removal Project

The primary focus of the Lyon 29/34 facility is to deliver transmission quality gas to the pipeline system and act as a metering station.

On peak days, this site is an important additional source of natural gas supply to the metro Detroit area. During 2018, 2019, and 2020 there were multiple occasions of gas purity issues occurring during the gas withdrawal season associated with water content.

The Lyon 29/34 facility upgrade project will help improve gas purity, measurement accuracy, and pipeline reliability by reducing corrosive components from the gas stream and improve site performance by installing gas purification equipment.

4. STORAGE FIELD ASSET PLAN

In alignment with the Storage Well Integrity Program and based on scenario modeling completed in 2018 through the lens of Consumers Energy's four objectives, the Company assessed the potential retirement of four low-cyclic fields to consolidate the storage system: Swan Creek, Four Corners, Lyon 34, and Riverside. Collectively, these fields provide less than 1.5% of the Company's gas supply throughout the winter.

Model results indicated three fields still provide value to customers and showed that Riverside may be a viable candidate for retirement.

- Removing Riverside from the storage portfolio has minimal cyclic impact, given the small amount of working gas volume at 1.48 Bcf, but has other operational considerations because it directly supplies three small city gate stations.
- Riverside contained approximately 9% of the system's total number of storage wells in 2018. Retirement would eliminate an estimated 14% of total risk associated with storage wells, including 5.8 metric tons of methane emissions.
- The remaining three fields represent just under 2% of the overall system risk and are currently providing significant supply resiliency. They also have a high deliverability to well count ratio that is used to supply peak demands.

Considering the items stated above, the Company decided to move forward with divestment of the entire Riverside storage field. The Riverside storage field supplies customers in adjacent communities via city gates directly to the field.

The Company's engineering team developed alternate supply options for the three city gates that span the distribution, transmission, and storage assets. The execution schedule for these projects occurs between 2023 and 2025. The completion of these projects will allow the Company to retire or sell the storage field.

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The Company is currently pursuing the sale of the storage field with a tentative closure date in 2025. Divestment of the Riverside storage field will reduce system risk and O&M expenses associated with operation of these storage assets with minimal impact to overall system deliverability.

Figure 8: Storage Well Integrity Program Overview

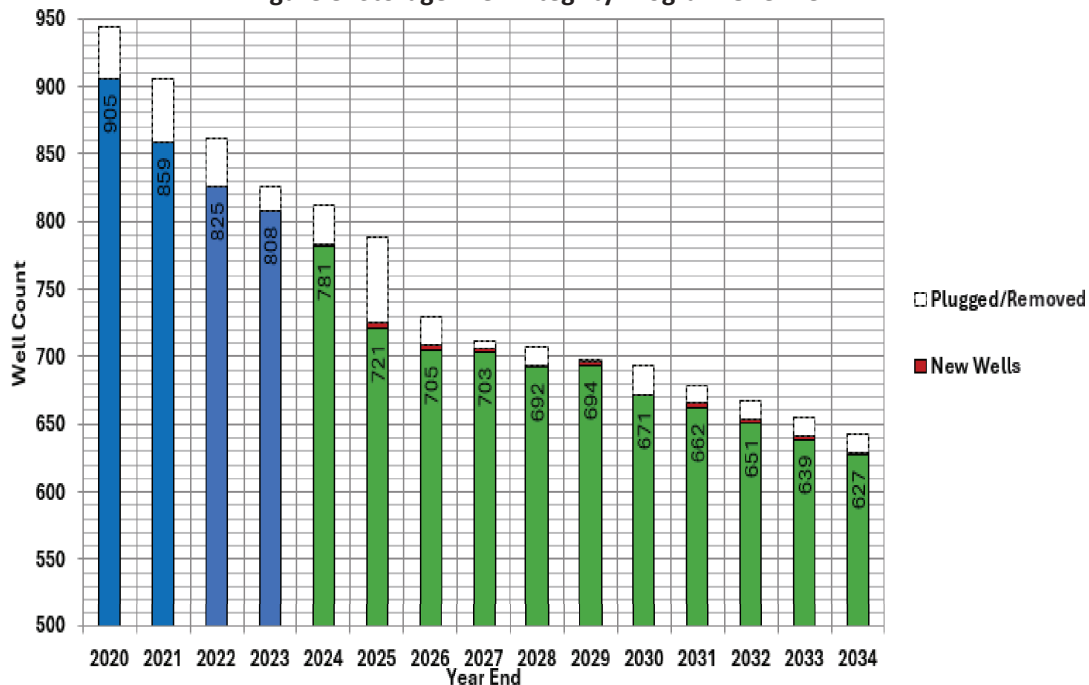


Figure 8 identifies that the combined approach of the Storage Well Integrity Program and the retirement of the Riverside storage field would reduce the overall number of wells, which will result in lower risk, lower operating costs, and lower methane emissions, while ensuring system resiliency, deliverability of gas flow per well, and potentially improving gas quality resulting in less risk to compressor station operations and downstream facilities.

This reduction in the overall number of wells will have a minimal reduction in working gas capacity from an approximate current amount of 154 Bcf to a forecasted amount of 152 Bcf in 2027.

5. STORAGE ASSET FINANCIALS

Figure 9 shows the spending needed to efficiently and effectively execute the Storage Well Integrity Program and other investments in the storage asset area.

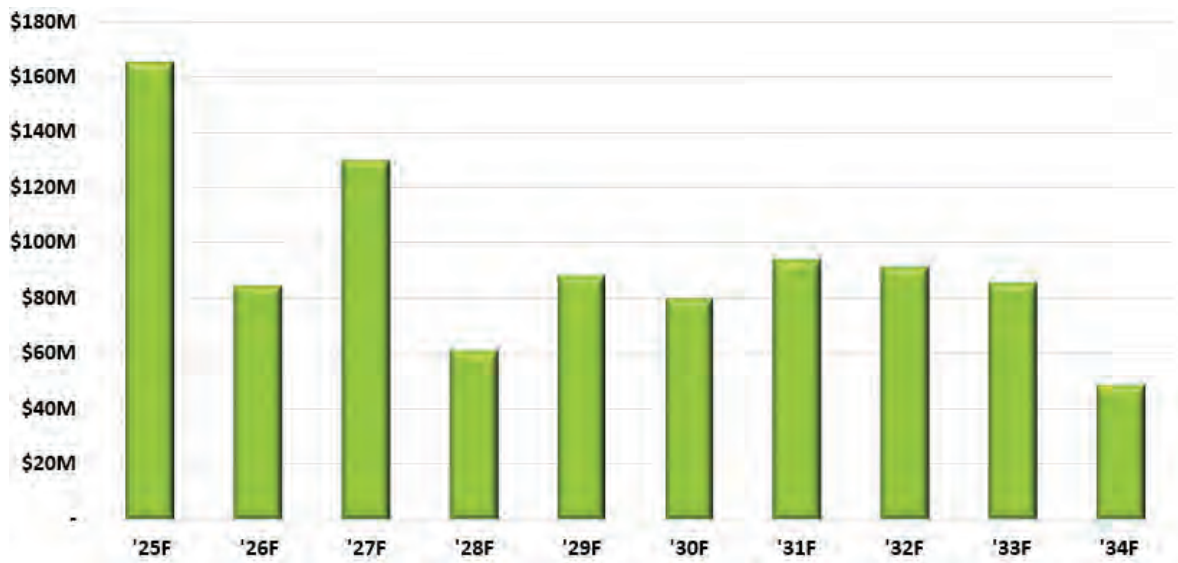
This investment plan aligns with Company objectives by reducing asset risk (safe), increasing the deliverability of each remaining well and positively affecting the natural gas system's resilience (reliable), reducing the overall well count (affordable), reducing the emissions points in this system (clean).

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Figure 9: Storage Capital Investment Plan



B. Compression Asset Plan

Consumers Energy has eight compressor stations that pressurize and condition natural gas for safe transport through the pipeline and distribution systems, as well as injection into and withdrawal from underground storage.

The compression fleet can be segmented, based on the purpose of the compressor station, into storage, transmission, and distribution stations, as described below in Table 2.

Table 2: Overview of the Four Types of Compressor Stations

	Storage Compressor Stations	Transmission Compressor Stations	Transmission and Storage Compressor Stations	Distribution Compressor Station
Purpose	Inject gas into and withdraw gas from underground storage fields. Condition gas as needed to meet customer needs.	Receive and transport gas throughout the gas delivery system. Condition gas as needed to meet customer needs.	Compression units are storage units that also provide transmission compression.	Boost gas pressure through the distribution system when agricultural processes such as grain drying increase demand in the rural Thumb region of Michigan.
Station Names	- Ray - Muskegon River	- White Pigeon - Freedom	- Overisel - Northville	Huron

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	• St. Clair			

Consumers Energy operates the fleet with local Company personnel while monitoring through Gas Control with SCADA.

The Company monitors system pressures, flows, and key high-volume customers. The station control room is linked to the other utility back-up control rooms in real-time, per the control room standard for physical and cybersecurity assurance.

Table 3 provides a more detailed summary of the compression units at the storage and transmission stations.

Table 3: Summary of Compressor Units

Station	Mothballed/Retired				Operable			
	Units	# Units	Unit HP	Total HP	Units	# Units	Unit HP	Total HP
Ray					CAT 3616	5	4,735	23,675
Muskegon River	HVC	2	3,286	6,571	TLA	2	3,400	6,800
	Turbine	1	10,500	10,500	HBA	4	2,600	10,400
					Turbine(Suction boost)	1	10,076	10,076
St. Clair					Waukesha	4	4,835	19,340
					T-4500	2	3,971	7,942
Overisel					TLA	4	2,700	10,800
Northville					TLA (Transmission)	2	2,700	5,400
					TLA (Storage)	2	2,700	5,400
White Pigeon	KVT	2	2,000	4,000	W-330	2	3,600	7,200
	W-330	2	3,600	7,200	CAT 3616	3	4,735	14,205
					V-250	2	2,000	4,000
					CAT 3608	1	2,370	2,370
Freedom					Waukesha	5	3,750	18,750
Huron					CAT 3512	1	1,035	1,035
System Total		7		28,271		40		147,393

1. COMPRESSION ASSET CLASS 10-YEAR FOCUS

- Reduce system risk and methane emissions through retirement and decommissioning of vintage compression units and equipment.
- Improve fleet reliability and system resilience through increased system health monitoring, automation to maintain asset performance, and preventative maintenance.
- Improve system resilience and maintain gas compression facility deliverability through alternative flow path validation and creation, as well as implementation of robust design enhancements to existing

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equipment to protect major natural gas supplies from interruption. Use system supply requirements, station assessments, and the Total System Resilience process to inform investments.

- Overall, the Company has a goal to achieve 30-40% utilization for the entire compressor fleet. Considerations for optimal utilization are described below in *Compression Asset Management*.

2. COMPRESSION ASSET MANAGEMENT

The Company's 2023 system weighted average compression utilization of 22% is below industry average of about 50%. The utilization rate calculates the amount of time that a compression unit is available to operate vs. the amount of time that it does operate.

Utilization is impacted by winter weather conditions and typically trends up when the winter is colder than normal, and a higher amount of storage is used. It will trend down when winter weather is warmer than normal, and a lower amount of storage supply is used. It also is affected by how and where gas is delivered by suppliers, the interstate pipeline delivery pressure verses Company transmission line pressure, conditions outside of the Company's natural gas system, asset availability, and other factors.

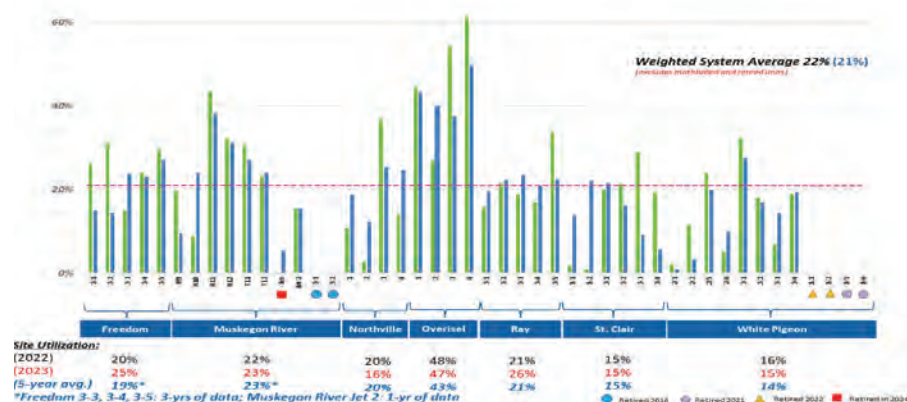
Overall, compression assets don't anticipate a utilization rate as high as the industry average due to the uniqueness of the Company's natural gas system.

- The Company's compression assets are used more to serve peak day and seasonal needs of storage assets, both for injection and withdrawal. Some compression assets are needed to ensure reliability at the station to avoid negative impacts to our customers as well as to provide the flexibility necessary to enable use of city gate supply.
- Another consideration, given the locational supply flexibility offered by the Company's natural gas system, is that interstate pipeline supply-focused compression may fall below industry average utilization depending on market pricing conditions.

The Company believes that an increase from the current 22% compression utilization is possible and can be achieved through efforts to improve the reliability of compressor stations and allowing the retirement of aging units. This will increase the utilization of the other compressor units and will be accomplished while considering the Company's natural gas system's resilience and supporting that system's maintenance needs.

Figure 10 illustrates the 2023 utilization of each compressor unit including mothballed units or units not currently in service.

Figure 10: 2023 5-yr Average Utilization by Compressor Unit



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The Compression Demand Schedule as seen below, is a communication tool that describes how much horsepower is needed at each station to meet planned needs for anticipated operational conditions, including design conditions. Random outage rates analyze potential compression buffer or shortfalls in terms of units and hp at each station.

The Company is the supplier of last resort and must prepare for design conditions that are not regularly seen, and that contribute to lower than peer compression utilization.

Figure 11 shows the monthly compression demand schedule that indicates the required quantity of units, hp, and projected peak demand months for each station.

Figure 11: 2024 Monthly Compression Demand Schedule (Example)

2024 MONTHLY COMPRESSION DEMAND SCHEDULE (10-20-2023)																
Compressor Stations	#Units	Unit HP	Total HP	WITHDRAWAL			INJECTION								WITHDRAWAL	
				Jan 2024	Feb 2024	March 2024	April 2024	May 2024	June 2024	July 2024	Aug 2024	Sept 2024	Oct 2024	Nov 2024	Dec 2024	
WHITE PIGEON	Min Req'd HP***			18,670	18,670	18,670	18,670	18,670	18,670	18,670	18,670	18,670	18,670	18,670	18,670	
W-330 (2-5.2-6)	2	3,600	7,200													
CAT 3616 (3-2.3-3.4)	3	4,735	14,205	4	4	4	4	4	4	4	4	4	4	4	4	
V-250 (2-1, 2-2)	2	2,000	4,000													
CAT 3608 (3-1)	1	2,370	2,370	1	1	1	1	1	1	1	1	1	1	1	1	
Unavailable Units (Notes)																
FREEDOM	Min Req'd HP			11,250	11,250	11,250	11,250	11,250	11,250	11,250	11,250	11,250	11,250	11,250	11,250	
Waukesha (3-1.3-2.3-3.3-4.3-5)	5	3,750	18,750	3	3	3	3	3	3	3	3	3	3	3	3	
Unavailable Units (Notes)																
OVERSEEL	Min Req'd HP			8,100	8,100	8,100	5,400	5,400	8,100	8,100	8,100	8,100	8,100	8,100	8,100	
TLA (1.2.3.4)	4	2,700	10,800	3	3	3	2	2	3	3	3	3	3	3	3	
Unavailable Units (Notes)				Fuel gas & Unitized cooling project			Unitized Cooling		Unitized Cooling		Fuel gas		Fuel gas		Fuel gas	
RAY	Min Req'd HP			-	23,675	23,675	14,205	14,205	18,940	18,940	23,675	23,675	23,675	18,940	-	
CAT 3616 (3-1.3-2.3-3.4-3.5)	5	4,735	23,675	0	5	5	3	3	4	4	5	5	5	4	0	
Unavailable Units (Notes)														*See Notes		
ST. CLAIR	Min Req'd HP***			19,040	19,040	22,222	12,702	12,702	14,280	14,280	14,280	14,280	14,280	12,702	12,702	
Waukesha (3-1.3-2.3-3.4)	4	4,760	19,040	4 Recip	4 Recip	**5 Units	3 Units	3 Units	3	3	3	3	3	3 Units	3 Units	
Turbine (1-1.1-2)	2	3,971	7,942						Turbines used only while Field Pressures allow for injection							
Unavailable Units (Notes)				Pit 1 comp work		Pit 1 comp work										
MUSKOGEE RIVER	Min Req'd HP***			28,619	28,619	28,619	8,600	8,600	8,600	8,600	8,600	8,600	8,600	14,600	26,019	
TLA (1-11, T-12)	2	3,400	6,800	2	2	2	1	1	1	1	1	1	1	2	2	
HBA (H-9-H-10-H-11-H-12)	4	2,600	10,400	4	4	4	2	2	2	2	2	2	2	3	3	
Turbine (Suction Boost-existing)	1	10,500	10,500													
Turbine (Suction Boost-new)	1	11,419	11,419	1	1	1	0	0	0	0	0	0	0	0	1	
Unavailable Units (Notes)																
NORTHVILLE	Min Req'd HP			5,400	5,400	5,400	2,700	2,700	2,700	2,700	5,400	5,400	5,400	5,400	5,400	
Unit 1&2 (Transmission)	2	2,700	5,400	1	1	1	1	1	1	1	1	1	1	1	1	
Unit 3&4 (Storage)	2	2,700	5,400	1	1	1	0	0	0	0	1	1	1	1	1	
Unavailable Units (Notes)																
Total	40		157,901	91,079	114,754	117,936	73,527	73,527	82,540	82,540	89,975	89,975	89,975	89,662	82,141	

Minimum required horsepower reflects what is required to pump Design rates, backup engines are required for planned and unplanned outages.

* Ray HP in November required up to the start of Ray field survey, 2 units available post survey

** St. Clair turbines are available for March withdrawals if base field pressures allow or for use with peaker fields

*** If the indicated number of units cannot be met then other units (engines or turbines where applicable) must be substituted to try to meet HP Demand requirements even if there is no requirement for the units

The demand schedule highlights the variation in monthly peak demands for storage and transmission compressor stations. In general, storage compressor stations tend to have greater variability in hp requirements month-to-month as they are used to adapt to varying customer demand while meeting summer injection and winter withdrawal needs.

- The lower hp utilization at St. Clair and Ray reflects how the Company uses the capability of those facilities to adapt to operational conditions. This reflects their ability to be adjusted as needed to meet continuously varying customer demand and system conditions.
- High utilization of most of the hp typically occurs when those facilities are using storage inventory and that compression is needed for withdrawal, which occurs later in the winter, generally during February and March.

Late season focus remains on cycling the base storage fields to reduce risk of gas migration in the fields, and this results in some stations' utilization being comparatively low. Using compression to cycle fields allows the Company to hold inventory in more prolific storage, and thus reduces the need to procure large quantities of more expensive pipeline transportation and supply during the winter, which is not guaranteed to be available.

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Peak day demands, including those that may be associated with gas-fired generation, are expected to primarily be met with peaking storage at Northville, St. Clair, and Ray, given their high deliverability characteristics and their ability to be used to respond throughout the day needed by the varying electric generation load.

- To manage reliance on Ray, and to support the system resilience, hp is needed to refill Northville and St. Clair after a peak demand period in the winter to facilitate more frequent cycling of peaker fields.
- The lower utilization at White Pigeon reflects market conditions and locational pricing that is currently more favorable for supply to be received through Freedom and Northville.

Maintaining access to supply and flexibility for changes in the location in supply helps keep consumer market prices lower and the natural gas system more resilient.

Transmission compressor stations have more stable daily and monthly peak demands to meet ongoing gas demand and transport needs throughout the year. However, there are changing conditions at those stations throughout the year that affect utilization, like available interstate pipeline pressures, varying market conditions and planned/unplanned upstream facility outages.

3. COMPRESSION ASSET PLAN

Based on the scenario modeling, five long-term recommendations for compression reflect new operating realities and align with the Company's objective of improving the system's reliability, resiliency and optimal utilization. The recommendations are:

- Accelerate the implementation of preventative maintenance program and practices, and gradually implement predictive technologies.
- Decommission retired/mothballed compressor units.
- Optimize the fleet of compressor units at Muskegon River to meet volume and pressure requirements.
- Evaluate contingency options for resiliency and opportunities that mitigate risk of outages at the compression stations.
- Assess feasibility of retiring additional compression assets to focus investment on most critical units and optimize portfolio.
- Compressor Station Compliance with Proposed Michigan NOx RACT Rule.

The following sections describe each recommendation in more detail.

Implement Enhanced Maintenance Program and Practices, and More Predictive Technologies

Consumers Energy will enhance maintenance practices to ensure the implementation of more proactive and efficient prevention programs. This will eliminate expensive, reactive events, improve the compression fleet's ROR, reduce downtime and overall maintenance costs.

The Company's current compression maintenance practices don't allow for analytics-based decision making or preventative and predictive maintenance. This is primarily due to the following:

- Compression is operating on a break-fix cycle.
- Maintenance data (such as failure records and work order maintenance logs) is incomplete.
- Equipment condition data, such as temperature and in-flow pressure, is limited.

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The Company also will improve record-keeping practices to ensure a standardized entry methodology or nomenclature for SAP entries.

Station performance and maintenance schedules and data are stored separately at each station in local templates. Investing in digital infrastructure will enable these important factors to be standardized across the fleet, and for performance monitoring and improvement to occur more efficiently.

Decommission Retired Compressor Units/Auxiliary Assets

Currently, there are 7 retired compressor units not being operated. These units are disconnected and removed from the system.

The Company's goal is to decommission these units, which enhance the site aesthetics and safety for employees, as well as reduce operating expenses.

The retired units, are located at Muskegon River, and White Pigeon:

- Muskegon River –Two HVC units (3-1 & 3-2) and one turbine
- White Pigeon – Two KVT units (1-1, 1-2) and two W-330's (1-5, 1-6)

Four KVG units (306, 316, 319, 320) at Muskegon River were decommissioned during 2020, and three HVC units (2-2, 2-3, 2-4) at St. Clair were decommissioned in 2021-2022.

The units in Plant 1 and Plant 2 at Freedom were decommissioned in 2023 after the completion of the Plant 3 Upgrade project.

The 5 units in Plants 1 and 2 at Ray were decommissioned in 2024.

Engineering and planning activities are underway to support decommissioning activities at Muskegon River, and White Pigeon.

Optimize Compressor Units at Muskegon River to Meet Volume and Pressure Requirements

With the retirement of the Riverside storage field, another high-level evaluation was completed that validated that Muskegon River compressor station without the Riverside storage field still delivers value to the system:

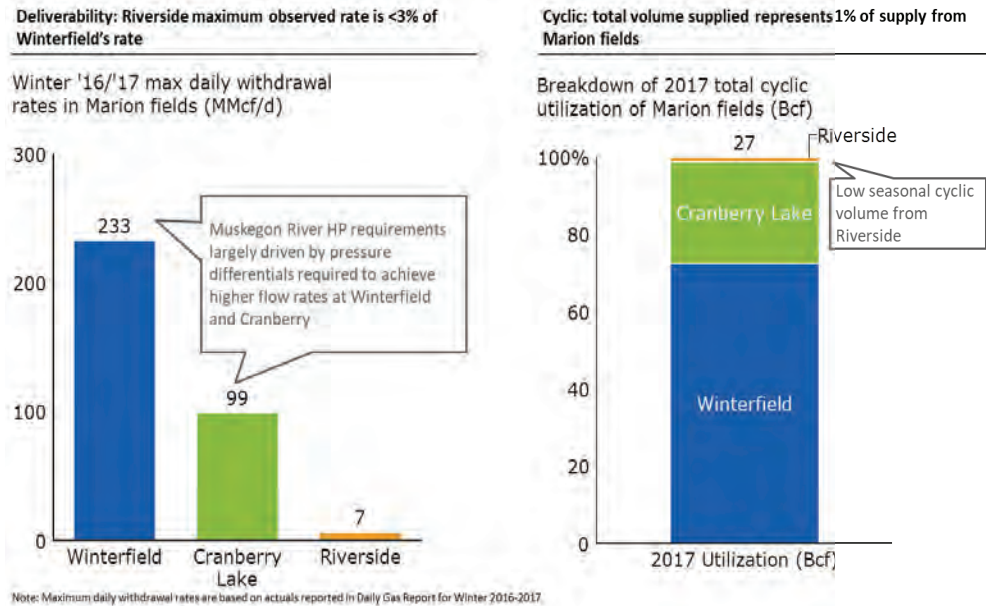
- The Muskegon River storage compressor station will still be used to pressurize gas to inject into and withdraw from the Winterfield and Cranberry Lake storage fields.
- Muskegon River hp requirements are largely driven by pressure differentials required to achieve higher flow rates at Winterfield and Cranberry Lake, and the total cyclic volume supplied from Riverside is 1% of the supply from the storage fields in the region (Riverside, Winterfield, Cranberry Lake), as shown in Figure 12. Replacing the antiquated suction boosting compression with a new turbine will enable more reliable suction boosting and higher cycling from the remaining two storage fields. Therefore, the impact at the Muskegon River compressor station from retiring Riverside is minimal.

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Figure 12: Maximum Daily Flow & Cyclic Capacities for Storage Fields Supported by Muskegon River



Consumers Energy is optimizing the compression horsepower at Muskegon River to meet volume and pressure requirements by:

- Completing the retirement of Plant 3 HVC pressure boosting units due to their age and ROR performance (2018). Completing installation of an in-kind replacement for suction boosting turbine. (Commissioned during winter 2022-2023).
- Retiring the existing turbine after the installation of the new turbine is complete (2024).
- Rebuilding to like-new the existing HBA and TLA (slower speed models) to extend their useful operating life by 2033.

Evaluate Contingency Options for Resiliency and Opportunities that Mitigate Risk of Outages at Compression Stations

The Company is analyzing resiliency in Compression, Storage, and Transmission, including gas flow path analysis and review of design improvements and hazard assessments.

A logical review of interrelated systems will occur in a manner that can identify specific potential failure points and quantifiable impacts. The components reviewed are typical of the following:

- Compression: compressors and engines including coolers, unit control and unit specific auxiliaries
- Gas conditioning equipment
- De-hydration equipment
- Natural gas heaters
- Slug catchers
- Filter-separators

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- Scrubbers
- Mechanical-structural
- Main gas headers
- Isolation and control valves, regulators, and fire gate systems including valves
- Fuel / pilot gas systems
- Compressed air systems
- Electrical instrument & controls, transformers, switchgear, MCCs, panels
- Station Control and Network Systems and instruments

In addition, the Company will evaluate the overall gas compression system to identify recommended investments to support an overall increase to system resiliency:

- Areas that will be evaluated include, but are not limited to, a bypass out of the Ray Storage facility directly into the transmission pipeline system, mitigation of single point failures in the system, and fleet-wide system improvements.
- Results from site hazard assessments and focused self-assessments have been used to evaluate each station to make recommendations to standardize system design to mitigate overall risk to the system.

Annually Assess Feasibility of Retiring Additional Compressor Units

The Company annually assesses feasibility of retiring additional compression assets to prioritize investment on the most critical assets for an optimized portfolio. This includes the following:

- Monitor signposts such as reliability, performance, and load changes over time.
- Evaluate station/asset reliability and required units.
- Incorporate system resilience assessments.
- Assess station layout risk and developing mitigations.
- Develop business cases for retirements/additions.

A transformation of compression maintenance practices to be more predictive and proactive, for example, will reduce ROR and increase reliability and performance of compression assets.

As these practices demonstrate further increases to reliability, the Company will evaluate the compression portfolio to identify the appropriate number of reserved capacity assets and amount of capability required at each station to meet peak demand. This aligns with the Plan's aim to improve supply resiliency and system optimization, including increasing the weighted average compression utilization rate as one of the 10-year outcomes.

Furthermore, the Company will monitor other factors that may impact the evaluation of whether to retire or upgrade compressors over time. For example, increasing market supply, storage cycling, or storage deliverability via compressor stations such as Overisel and Northville may require increasing hp at these two stations to reliably handle increase in peak or seasonal demand.

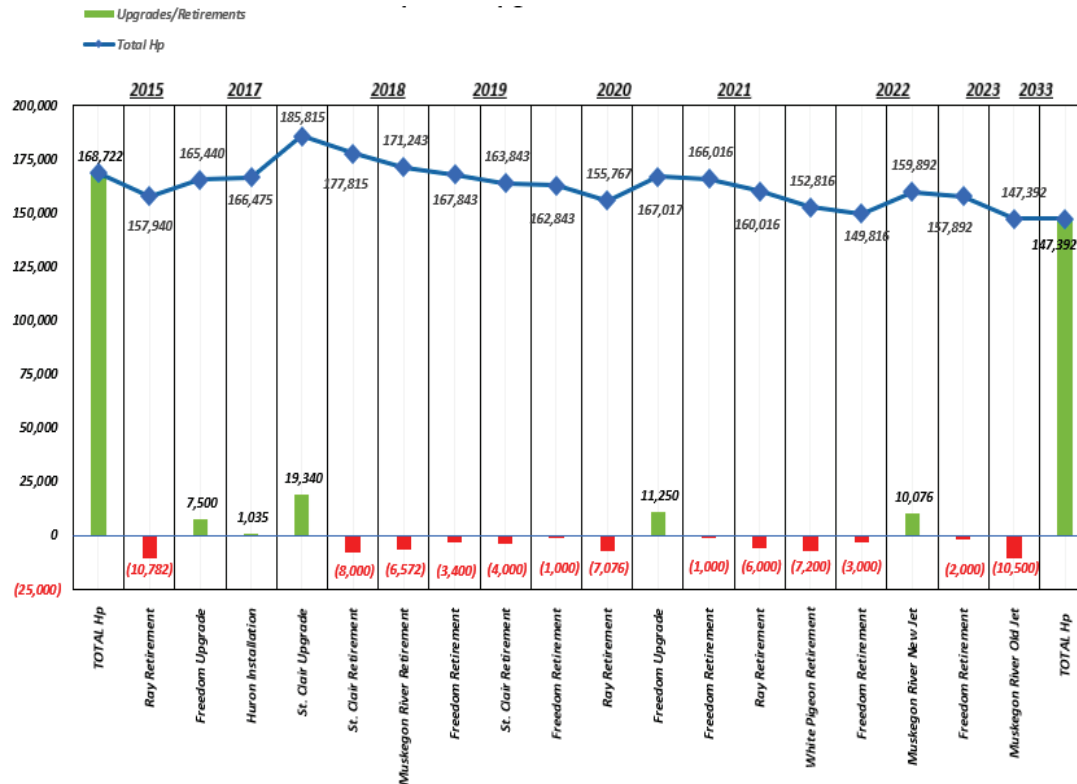
Figure 13 shows the Company's plan to optimize the compression fleet with an approximate net reduction of 21,328 hp from 2015 to 2033 without impacting customer deliverability.

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Figure 13: Compression Fleet Optimization (2015-2033)



Compressor Station Compliance with Michigan NOx RACT

These rules impact the older, slow speed units at Overisel, which has 4 engines that require modification to achieve proposed NOx emission limits.

Overisel is in an area that is currently designated as ozone non-attainment and is subject to the Michigan NOx RACT rule, a project is underway to modify the engines to meet the new NOx emission limits.

4. COMPRESSION ASSET FINANCIALS

Based on the modeling and planning to date, the forecasted capital investment plan for the Company's compression assets is shown in Figure 14.

This capital investment plan will be updated routinely as assessments are completed, and business cases are created to support necessary spend plans.

Overall, this investment plan for compression assets aligns with the Company's objectives by reducing asset risk (safe), reducing the ROR and increasing utilization rates (reliable), optimizing the fleet with more modern equipment and modifying maintenance practices (affordable), and reducing the amount of equipment emissions (clean).

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Figure 14: Compression Capital Investment Plan



C. Transmission Assets

The Company's transmission system is the 'expressway' of the gas system, transmitting large quantities of gas in pipe diameters ranging from 4 inches to 36 inches, at high pressures between 400 and 1,185 pounds per square inch ("psi").

Gas Transmission lines move gas from interconnects, to and from storage, as well as to city gates for delivery to the distribution system. Within the Transmission system is Transmission Operated as Distribution ("TOD") pipe. TOD is considered transmission pipeline for DOT Reporting, but from an operating perspective is part of the distribution system.

Per the Company's 2023 Transmission DOT Report filing, there are 2,342 miles of pipeline. The associated breakdown of transmission pipeline mileage is shown in [Appendix B](#).

The Company's goal is to meet the capacity needs of Michigan as well as to optimize the transmission system in terms of age, materials, and technology to ensure public safety.

The Plan to achieve this goal includes compliance with State and Federal Pipeline Safety regulatory requirements for inspections to address threats on the system and actions to mitigate risk. The Plan also continues investment in upgrading and replacing the Company's major pipelines and modernizing the system with remote-control valves ("RCVs") to quickly isolate the system when system integrity is compromised.

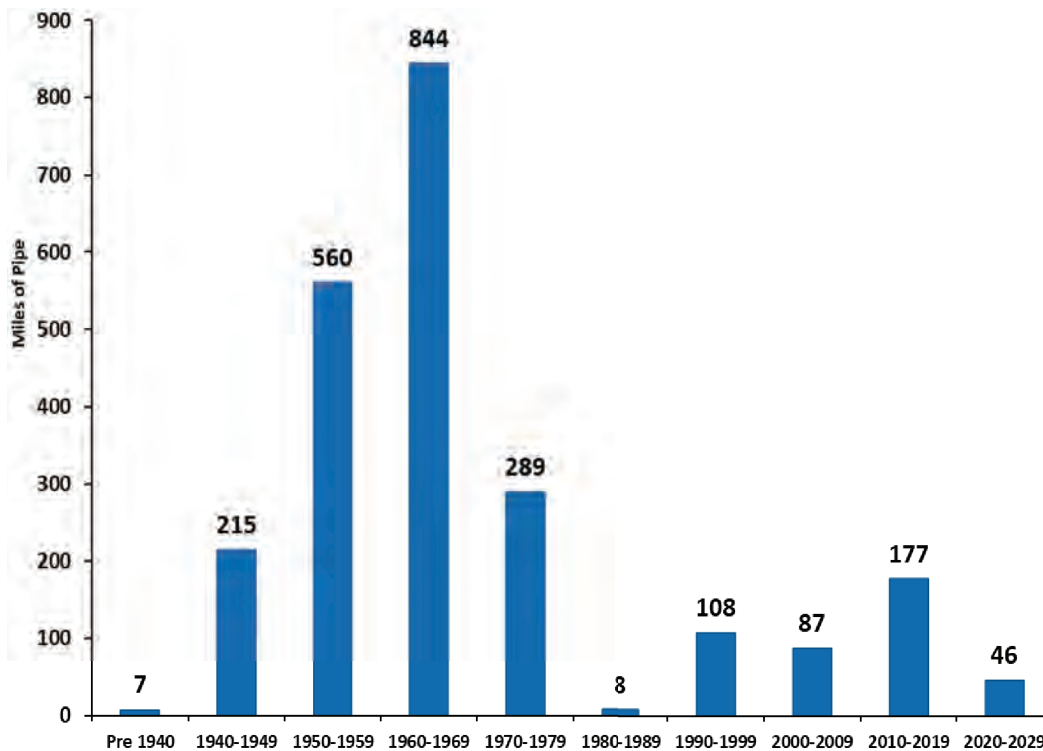
The weighted average age by miles for the transmission pipeline system is 52 years old. Approximately 1,915 miles, or 82%, of transmission pipe was installed in the 1970s or earlier, as shown in Figure 15.

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Figure 15: Transmission Pipeline by Decade of Installation



1. TRANSMISSION ASSET CLASS 10-YEAR FOCUS

- Obtain the necessary technology for system response and needed flexibility with capacity throughput and diversity of flow paths for total system resiliency to reduce system risk and methane reductions caused by aging infrastructure. This is achieved through SCADA upgrades described below under *Technology*.
- Increase the pipeline integrity scope to account for the additional remediation work for transmission piping to meet new regulatory requirements for Maximum Allowable Operating Pressure (“MAOP”) reconfirmation, as well as the incremental remediation as an outcome of inspecting TOD and storage lines.
- Attain 70% of RCVs installed on valves on the transmission system by 2028.
- Upgrade the Company’s natural gas supervisory & control data systems, which allow for secure monitoring and control of the natural gas system, and upgrade city gates.
- Reduce the probability of high impact natural gas system failures.
- Eliminate MAOP exceedances by installing emergency shut down devices at facilities, install filtration equipment at facilities, and perform maintenance pig runs.

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2. TRANSMISSION ASSET PLAN

a. Capital Remediation for Transmission Pipeline (i.e., “mainlines”)

By the end of 2025, all transmission mainline miles will be inspected regardless of consequence area classification. This does not include transmission miles within the storage fields, compressor stations, TOD segments or transmission lines installed within the last 10 years.

Within the transmission mainline miles are high-consequence areas (“HCA”) and moderate consequence areas (“MCA”). HCA and MCA classifications are inspected on a recurring basis, six and nine years, respectively.

In addition to the planned, on-cycle inspections, risk mitigation inspections for transmission lines display early signs of deteriorating conditions, such as Stress Corrosion Cracking (“SCC”).

- SCC is a form of environmental cracking that requires three conditions to develop, susceptible material (steel), stresses on the pipeline that are higher than the threshold for SCC and an environment that supports cracking such as local soils and groundwater.
- Many factors can affect the initiation and propagation of SCC, but a pipeline’s coating system provides the primary barrier with Cathodic protection providing a secondary barrier.
- The environmental factors that support SCC can develop under the right conditions when the coating on a pipe is compromised or dis-bonded.
- In 2015, one of the Company’s pipelines ruptured due to SCC. Since that time, the Company has assessed pipelines that have the highest potential for SCC to occur, and there have been instances where SCC was found and remediated.

The Company completed the construction of the Mid-Michigan Pipeline project in 2024 to replace an existing 70-year-old pipeline that has shown signs of SCC and experienced the rupture in 2015.

This project is further discussed in below in the section concerning the *Transmission Enhancements for Deliverability and Integrity* (“TED”)-I program.

b. Inspection for Transmission Operated by Distribution (TOD) Pipelines

Within the total Company TOD miles, 100 miles of TOD reside within HCAs and will follow the inspection cadence discussed above.

For the remaining non-HCA TOD pipelines, the Company is extending the Low Stress Assessment process to inspect and remediate areas with low cathodic protection levels to ensure continued safe operation.

c. Transmission Enhancements for Deliverability and Integrity projects

Transmission Enhancements for Deliverability and Integrity (“TED-I”) pipeline projects focused on maintaining integrity, deliverability, and include transmission pipeline replacements of higher relative risk pipe to ensure safe operation. Higher relative risk pipe includes segments with previous anomalies or stress characteristics related to integrity management risk mitigation. Consumers Energy identified certain transmission pipelines to replace or upgrade due to their condition.

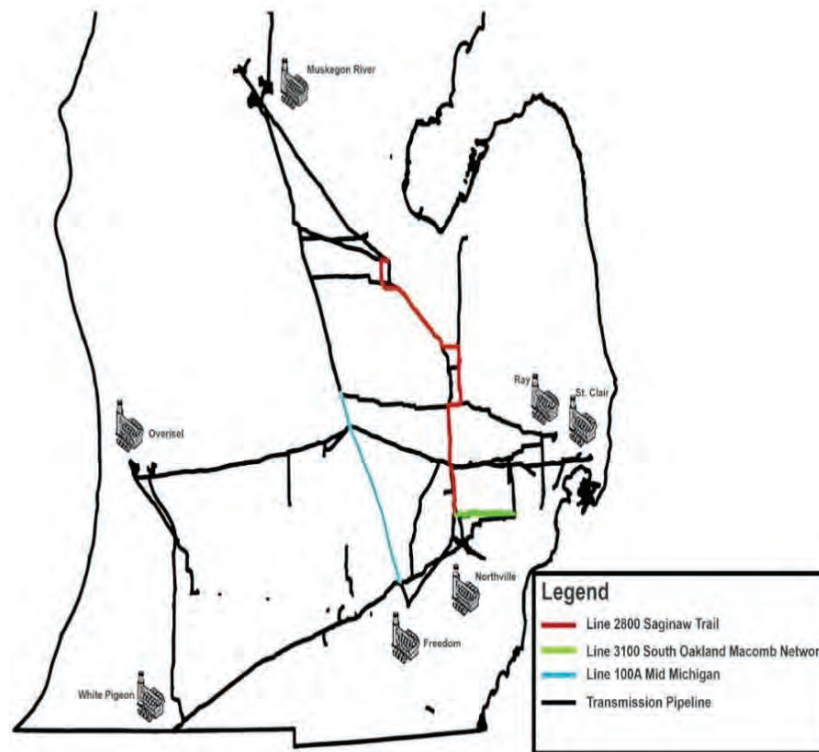
The major TED-I projects are Saginaw Trail Pipeline (started in 2017 and completed in 2020), the South Oakland Macomb Network (started in 2018 with construction and completed in 2021), and Mid-Michigan Pipeline (construction 2023 and 2024). As of 2024, all major pipeline replacements are successfully complete. No additional major pipeline replacements are planned. The completed projects are shown below in Figure 16.

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Figure 16: Map of TED-I Gas Transmission Pipeline Projects



As transmission lines age, there are two primary factors considered for replacement, *capacity needs* and *integrity*.

All transmission lines are continuously evaluated based on these two factors, which form the basis for prudent decision making in repair versus replacement. Capacity requirements are factored into line replacements to ensure customer deliverability.

- TED-I pipeline projects improve customer reliability and advance public safety by replacing or retiring higher relative risk pipe segments and, in some cases, increasing capacity which in many cases enhances system resilience.
- Replaced pipelines also have enhanced pipeline pressure control and isolation capabilities.
- The Company is planning the Oakland Resilience Interconnect, a transmission interconnect with DTE Gas, in 2025 that will improve overall system resiliency to the benefit of customers of both Companies. In accordance with 1929 Public Act 9, the Companies received a certificate of necessity to construct and operate the interconnect on October 10, 2024. This project is responsive to the Commission's recommendation pertaining to risk mitigation in the 2019 SEA.

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d. City Gates

A city gate is a distribution center and/or fuel station. The Company operates 90 city gates as of December 31, 2023, where pressure is regulated and natural gas is odorized for safe delivery to homes and businesses. Over-pressure protection and SCADA monitoring equipment are located at city gates.

City gates are an important component to the natural gas system in that they reduce transmission line pressure for distribution use and in some cases improve the quality of gas before entering the distribution systems. Most city gates inject an odorant into the gas stream for leak detection through the sense of smell.

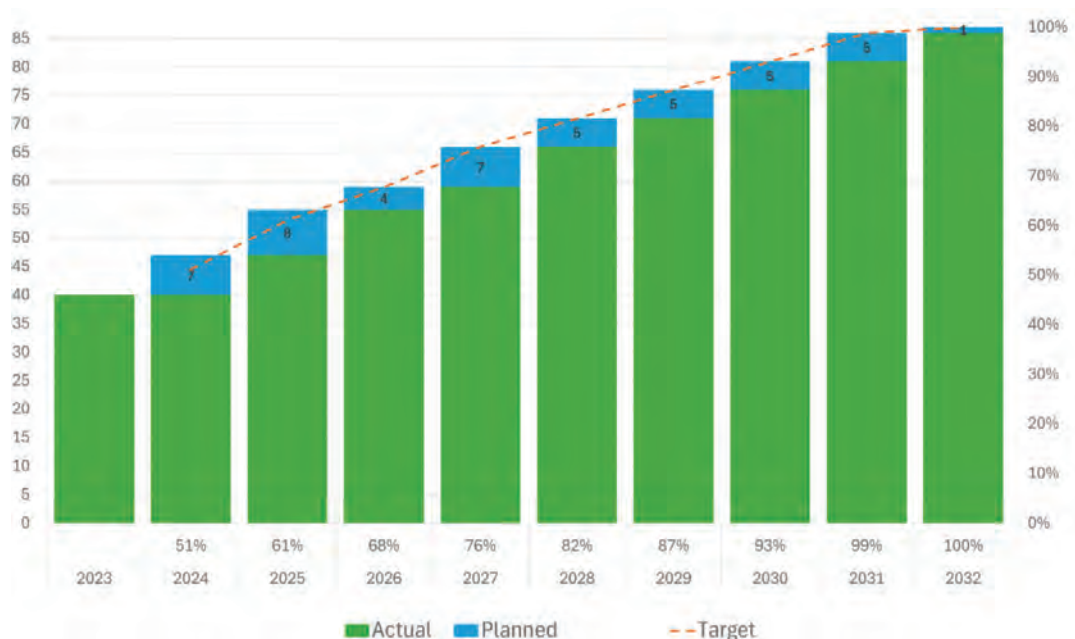
City gate facilities and their equipment have a reasonable life span of about 50 years. However, age alone is not the primary factor for rebuilding a city gate.

The city gate fleet goal is to 'modernize' 90% of the Company's city gates within this 10-year plan. *Modernization* is defined as upgrading the following mechanisms: emergency shutoff system, bath heater system, separation systems, and the required SCADA transducers for each stage.

The 10-year plan shown on Figure 17 calls for the modernization of 5-10 city gates each year. In addition to full rebuilds, components required for modernization will be rebuilt or added as appropriate rather than full rebuilds as specific station needs dictate in consideration of customer affordability. To achieve this target, annual spending between \$1 to \$13 million per city gate, or \$40 to \$60 million annually for the entire program for the next 10 years is required.

After modernization is complete, city gates will be rebuilt on a cycle that will ensure the entire fleet is rebuilt within 50 years, or as required for safety, customer demand, and high-performance demand.

Figure 17: City Gate Attribute Modernization Plan



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e. Remote Control Valves (RCV)

RCVs are important safety components in the natural gas system. RCVs reduce response time in the event of damage to a transmission line or a rupture event. The ability to remotely and quickly stop the flow of gas is essential, and RCVs are the standard for achieving this across the system.

It is important to note that RCVs do not prevent failures from occurring but are intended to minimize the time gas flows after a failure. These RCVs also allow for manual operations if a condition calls for an operator to override the RCV. RCVs were first installed in 2017 in HCAs and at flexible points in the system.

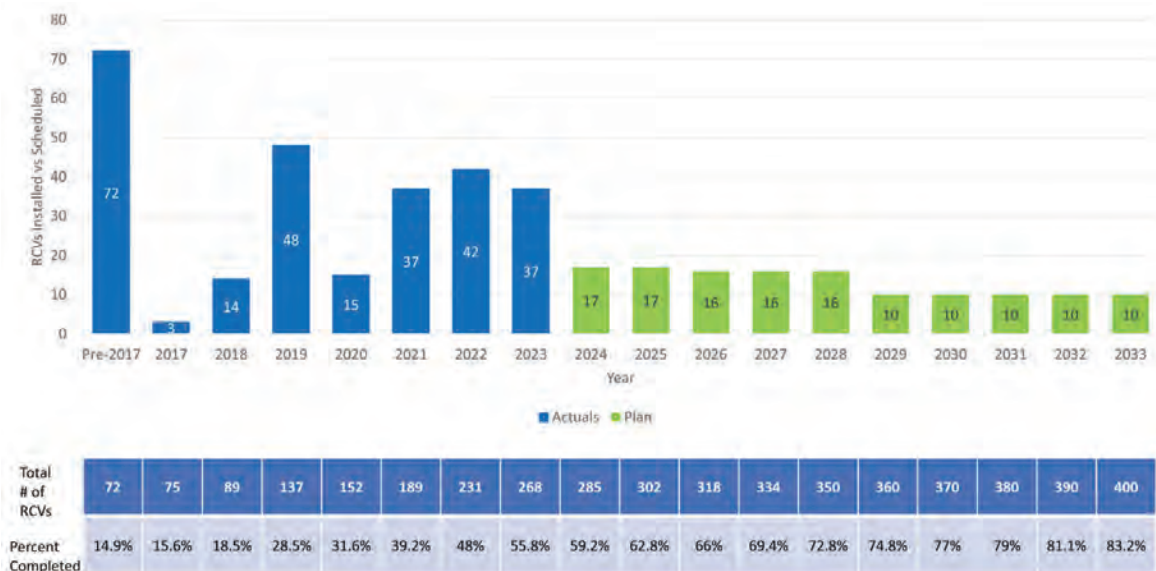
- Check valves will also be used on transmission tap lines when appropriate to aid RCVs in the isolation of a particular transmission segment.
- Check valve technology prevents the back feeding of gas in the event of an emergency.

To leverage RCVs as a means of increasing the safety of the transmission system, the Company is planning an installation rate toward a goal of 70% of the system valves by 2028, as shown in Figure 29. Figure 18 below represents the year in which the RCVs have been installed and are planning to be installed with final commissioning of RCVs sometimes occurring in the subsequent year.

This safety benefit is the time reduction to isolate the system during an emergency or abnormal operating condition. The current goal aligns with the continuously evolving prioritization of work, available resources, and system outage schedules.

In addition, a Gas SCADA system upgrade is being conducted to support this plan. Currently, the Company has 481 valves on the transmission system, requiring approximately 336 additional RCVs to reach the 70% goal.

Figure 18: Current RCV Installation Rate



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f. Other Transmission Investments

In addition to the Transmission Investments mentioned above the Company invests in other programs that ensure safety, resiliency, reliability, and compliance with regulations. These include:

- **Asset Relocation:** Transmission investments include gas transmission infrastructure replacement projects that are required due to civic improvement activities initiated by federal, state, or local governmental units where transmission pipeline location or depth of cover requires relocation of an existing pipeline to prevent third-party damage, eliminate physical conflicts with other utilities, and to ensure continued safe operation. Major projects planned include Chippewa River line lowering, Rabbit River line lowering, and Townline Road line lowering.
- **Cathodic Protection Program:** This Program maintains compliance with federal regulations for cathodic protection of facilities.
- **MAOP Compliance:** Pipeline investments involve MAOP verification and remediation of transmission pipelines, including Transmission Operated by Distribution pipelines.
- **Deliverability Base Field Measurement:** These investments ensure accurate gas quality and measurement.
- **Deliverability Base Pipeline:** These investments support maintaining operations in accordance with State (Michigan Gas Safety Standard) and Federal Pipeline Safety regulatory requirements. The Company intends to eliminate transmission and storage identified inoperable valves by replacement and/or retirement. Types of projects include:
 - Replacement of valves, and if necessary, the associated valve operators, when inspection determines that the valves no longer perform as needed. Which may mean valves no longer turn or they may not fully seal off the flow of gas.
 - Replacement of piping due to MAOP revisions.
 - Construction of new sectionalizing valves and tap valves to improve system deliverability and help meet valve spacing requirements defined by State and Federal Pipeline Safety regulatory requirements; (iv) reconfiguration of tap piping (i.e., laterals) and associated valving upstream of city gate facilities as companion projects to city gate rebuilds.
 - Installation or retirement of pipeline taps to Transfer Meter Site facilities being attached to the Company's system.

3. TRANSMISSION ASSET PLAN AND FINANCIALS

Consumers Energy's transmission inspections, remediation work, city gate modernizations, and RCV installations provide the basis for the capital investment plan shown in Figure 19.

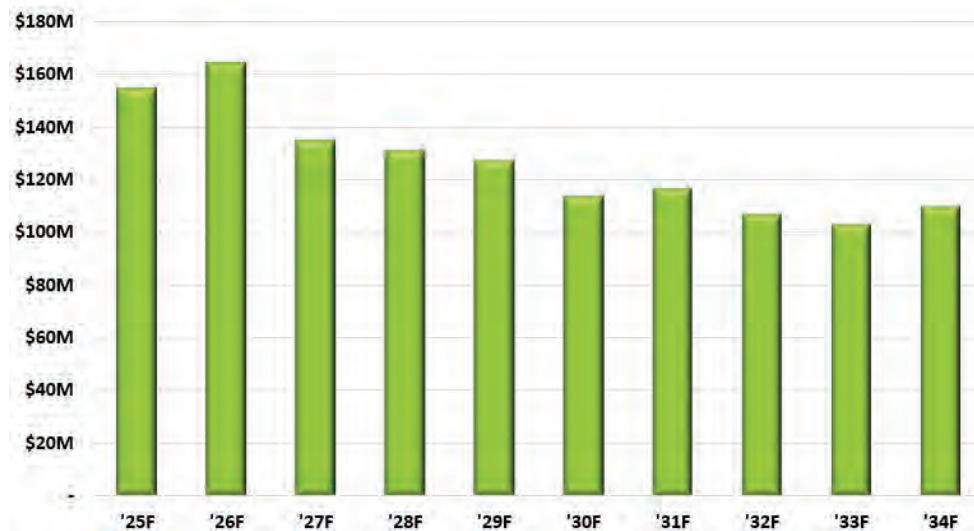
Overall, this investment plan for the transmission asset class aligns with the objectives by reducing asset risk (safe), ensuring the pipelines can flow when required (reliable), providing the necessary resilience to obtain either pipeline or storage gas supplies and being remote controlled for system agility (affordable), and reducing the amount of emissions in this system (clean).

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Figure 19: Transmission Capital Investment Plan



D. Distribution Asset Plan

- Consumers Energy’s distribution system moves gas at 60-400 psi from city gates through pressure regulation stations into neighborhoods and commercial and industrial (“C&I”) districts to customer businesses and homes at service pressures that are less than 1 psi.
- Consumers Energy has approximately 28,368 miles of distribution pipeline, 516 miles of TOD pipeline, and 1.6 million services as of December 31, 2023.
- The Company’s distribution mains are approximately 55% plastic, 43% cathodically protected steel, and 4% cathodically unprotected steel and vintage materials.
- The distribution system includes some of the Company’s oldest facilities that are situated closest to customers. Replacing infrastructure to reduce risk and expanding remote monitoring in this area is critical. Vintage materials include cast iron, bare steel, and copper, which were installed from the 1890s through the 1970s. These are the highest-risk assets in this system and are the primary risk drivers. There are 1,611 miles of vintage materials with 112,157 services of vintage materials
 - In 2012, Consumers Energy launched the *Enhanced Infrastructure Replacement Program* (“EIRP”), targeting replacement of pipeline vintage materials over multiple decades.
 - Further, in 2017, the Company added the Vintage Service Replacement (“VSR”) Program to eliminate identified vintage materials on services on a programmatic basis.
 - Removing vintage materials from the distribution system will improve customer safety and reliability by eliminating higher-risk materials from the system. This includes eliminating the standard pressure system.
- While leaks in this asset class are at a lower pressure compared to the transmission system, they are also located much closer to the public. To support expanded monitoring, the Company is implementing advanced leak detection and upgrading its Supervisory Control and Data Acquisition (“SCADA”) system—this is further explained in the *Technologies* section.

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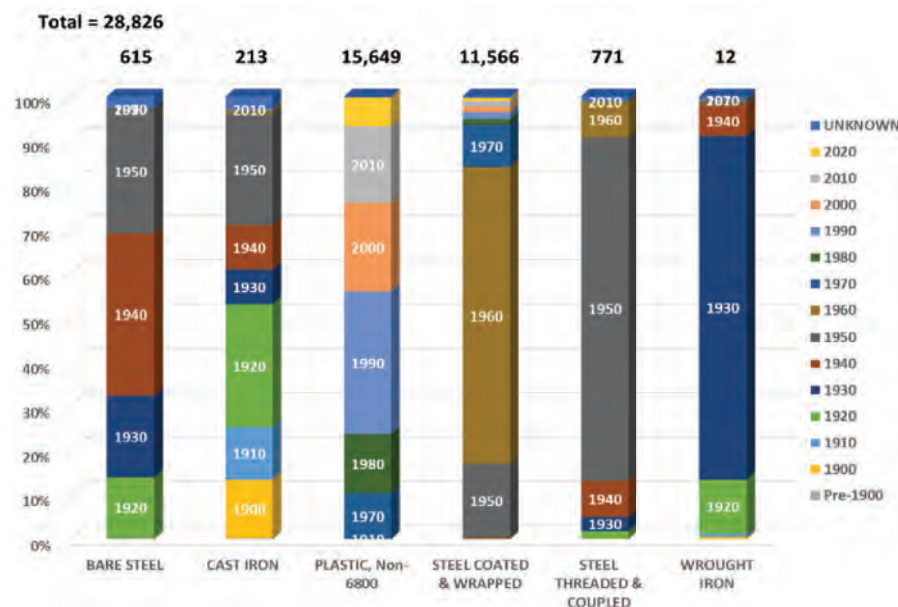
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1. DISTRIBUTION ASSET CLASS 10-YEAR FOCUS

- Reduce system risk and methane emissions while addressing system reliability and capacity. This will be accomplished by addressing aging or vintage infrastructure that is closest to the customers.
- Remediate vintage distribution main, standard pressure main, and vintage services to meet 2035 completion date. The annual targeted miles, as shown in Figure 20, is revised to balance with affordability and account for labor requirements, municipality project schedules, identified remaining segment projects, etc.
- Plan for resource availability to accommodate emergent and long-range requests for civic/asset relocation work consistent with actual 2019 – 2023 historical experience, or approximately 34.5 miles of gas distribution main installations annually.
- Remediation of line segments for which the Company has located pressure test records that conform to State and Federal Pipeline Safety regulatory requirements for traceable, verifiable, and complete documentation.
- Ensure funding for Distribution programs requiring changes to comply with new regulations, business growth, or technology obsolescence to avoid non-compliance or outdated/inefficient solutions.

The Company's system is comprised of a variety of materials with installations dating as far back as the early 1900s as shown in Figure 20 below⁷.

Figure 20: Distribution Main by Materials and Installation Date (includes TOD)



Cast and wrought iron pipelines are among the oldest in the Company's distribution system. Nearly 65% of these pipeline types were installed pre-1940 making them over 84 years old. The age of the pipelines

⁷ U.S. DOT PHMSA reported figures (March 2024)

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introduces corrosion and cracking due to the degradation of the iron alloys (i.e., pipes rust and get brittle with age) and pipe joint design.

The following factors increase risk involved with a system that contains vintage materials:

- Bare steel (also called ‘uncoated’) pipelines are considered higher risk due to corrosion and cracking caused by age and lack of protective coating. External corrosion occurs on metal pipe due to soil and moisture conditions. Bare steel pipe is in direct contact with these corrosive conditions.
- Fluctuations of temperatures during the seasons, as experienced in Michigan, create additional risks. Once the ground freezes at low temperatures, pipelines are susceptible to frost heave causing new cracks to form and existing cracks to expand.
- Natural gas vapors are lighter than air and will generally rise and dissipate quickly. These vapors will move through the soil finding the path of least resistance. Frozen ground acts as a vertical barrier causing gas to gather and pushing it horizontally until it finds an opening (porous/cracked foundations, water/sewer lines) often leading into a building.
- In underground low-pressure gas pipelines, a leak may result in water infiltration (also called ‘water ingress’). Groundwater enters the gas pipeline through a crack or corroded section of pipe, and eventually blocks the gas flow to the customer. In winter months, the water can freeze causing additional blockages, customer meter freeze-offs, and/or expanding existing pipeline cracks.

PHMSA classifies the highest risk materials⁸, in order of risk, as:

- Cast iron
- Bare steel
- Threaded & coupled steel
- Wrought iron

These at-risk materials total 1,611 miles of main or approximately 5.7% of all distribution main miles. Of the remaining at-risk material miles, there are 1,394 miles located within the SP/MP system and 217 miles are in the HP system. Remaining miles for the highest risk materials are shown in Figure 22.

Another distribution integrity risk is pipes operating at standard (utilization) low pressure. Gas needs to reach each customer with enough flow rate and pressure to fuel equipment and appliances while staying below the maximum operating pressure for each segment within the system. The challenges of operating a standard pressure system are the dynamic flow and pressure changes due to varying customer demand within a narrow pressure operating range.

The standard pressure system operates at 8 - 12” water column (“WC”) (about a ¼ psig). The pressure delivered to customers is the same pressure within the distribution pipeline from the upstream regulator station. The regulator station reduces the pressure to a level that allows the low-pressure gas to flow continuously to customers without the need for a second regulator located at the meter stand.

Since there is not a second regulator at every meter stand in a standard pressure system, an overpressure condition occurring on the distribution system can affect all customers served by the

⁸ [Pipeline Replacement Background | PHMSA \(dot.gov\)](#)

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system if the regulator(s) at the regulator station that controls the pressure for the system fails. This type of over-pressure incident occurred in 2018 in Merrimack Valley⁹.

In addition to the risk of high-pressure incidents, a standard pressure system is also at risk of low-pressure incidents. This system struggles to operate at rated pressures on extreme cold weather days, respond to customer demand changes, etc.—and requires accurate and timely pressure control to meet deliverability requirements. If the rated pressure is not maintained and drops below 7" WC, customers may experience heating and other appliance problems due to low gas pressure.

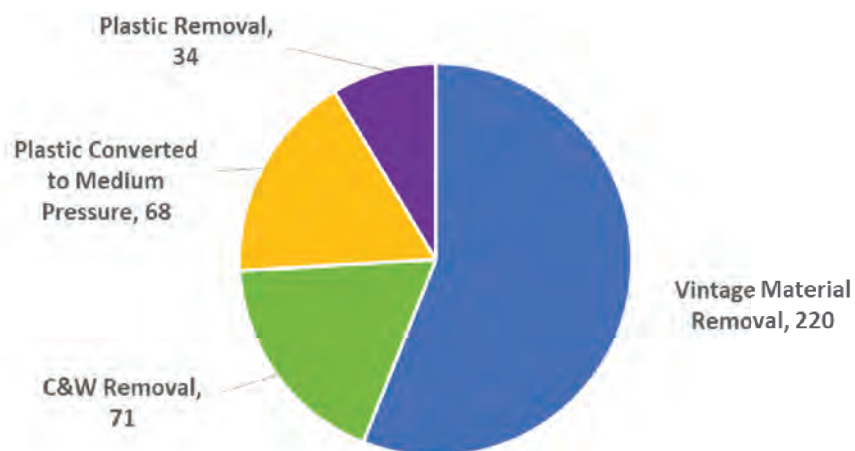
Other factors that can contribute to low gas pressure include standard-pressure portions of the system, with largely vintage materials, which are susceptible to fluid infiltration from the ground. This fluid can travel through the system, including to customer meters.

Additionally, in freezing temperatures, this fluid may seal the orifices of the meter and/or regulator and interrupt gas flow. This poses a risk to customers during the heating season. Furthermore, removal of this fluid requires maintenance of "drip" points on the standard-pressure system with additional costs for removing/pumping the fluids.

The Company's vintage miles cover all but approximately 173 miles of the 393 remaining miles of the standard-pressure system. The 173 miles are made up of 71 miles of coated and wrapped steel and 102 miles of plastic pipe. A portion of the plastic pipe, 68 miles, is planned to be converted from standard-pressure to medium pressure. The remaining 105 miles of plastic and the coated and wrapped steel will be removed/retired.

Therefore, to improve customer safety and reliability and improve system efficiency due to higher operating pressures, the 105 miles of non-vintage standard low-pressure pipe will be added into the vintage remediation goals with the intention of eliminating the standard pressure system by 2030.

Figure 21: Standard Pressure System (in miles)



⁹ Merrimack Valley NTSB Report: <https://www.nts.gov/investigations/AccidentReports/Reports/PA1902.pdf>

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2. DISTRIBUTION ASSET MANAGEMENT

Overview of the Current Main and Service Remediation Program (i.e., EIRP, VSR)

The *Pipeline Inspection, Protection, Enforcement, and Safety Act* (“PIPES”) of 2006, Public Law No: 109-468, mandated that PHMSA, within the U.S. Department of Transportation, prescribes standards for *Distribution Pipeline Integrity Management Programs* (“DIMPs”).

Federal DIMP rules were subsequently established under Subpart P of the U.S. Code of Federal Regulations, Title 49, Part 192. The Company’s current replacement program (part of Consumers Energy’s DIMP to remediate at-risk cast iron, bare steel, and threaded and coupled steel) is the EIRP.

The EIRP was launched in mid-2012, with the first full program year in 2013. Through all programs, the Company remediated 373 miles of cast iron, 413 miles of bare steel, 298 miles of threaded and coupled steel, 10 miles of wrought iron, 1 mile of x-trube, 38 miles of Low Frequency Electric Resistance Welded (“LFRW”), for a total of 1,134 miles.

Figure 22 shows miles of historic Vintage Material remaining on the system based on data submitted on and supplemental data to the Distribution DOT annual report for that year.

Figure 22: Vintage Miles of Main Remaining by Material Type



Figure 23 shows the total miles of SP/MP Vintage and HP Vintage main remaining on the system at the time of the 2023 DOT Report submittal and is represented by the first two bars in the figure. Data is specific to the EIRP Program and is based on the EIRP Annual Performance report data. The totals may not sum to the individual years due to rounding.

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Figure 23 shows a breakdown of the remaining EIRP program miles by material, pressure class, and TOD pipe as of February 1, 2024.

Figure 23: Remaining EIRP Program Retirement Miles

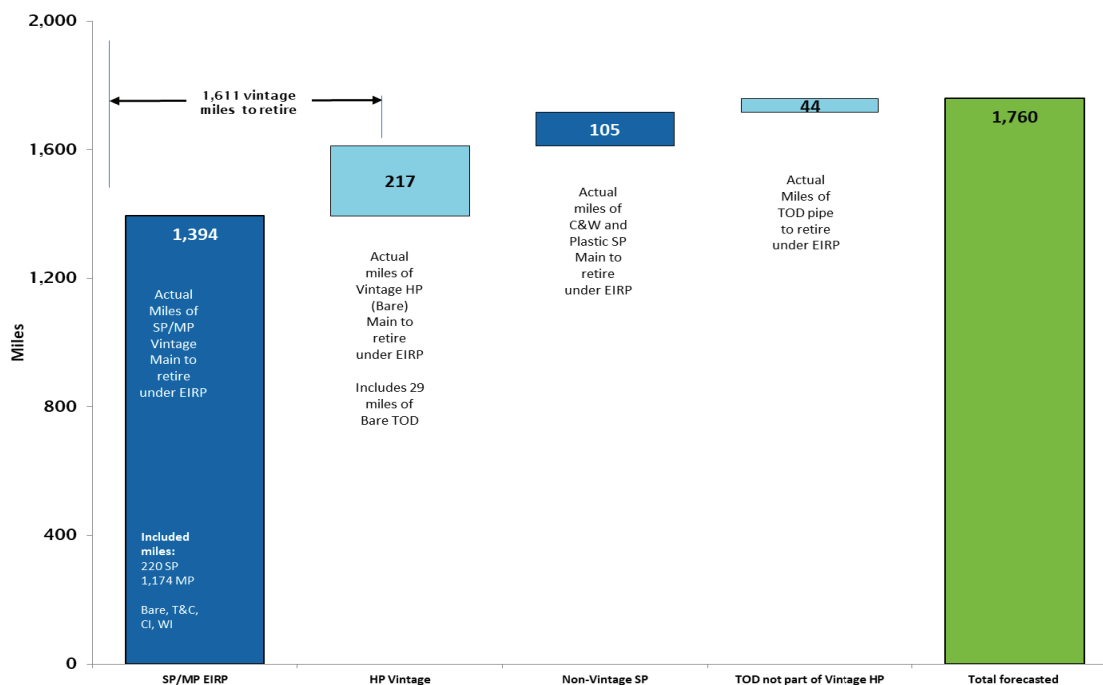
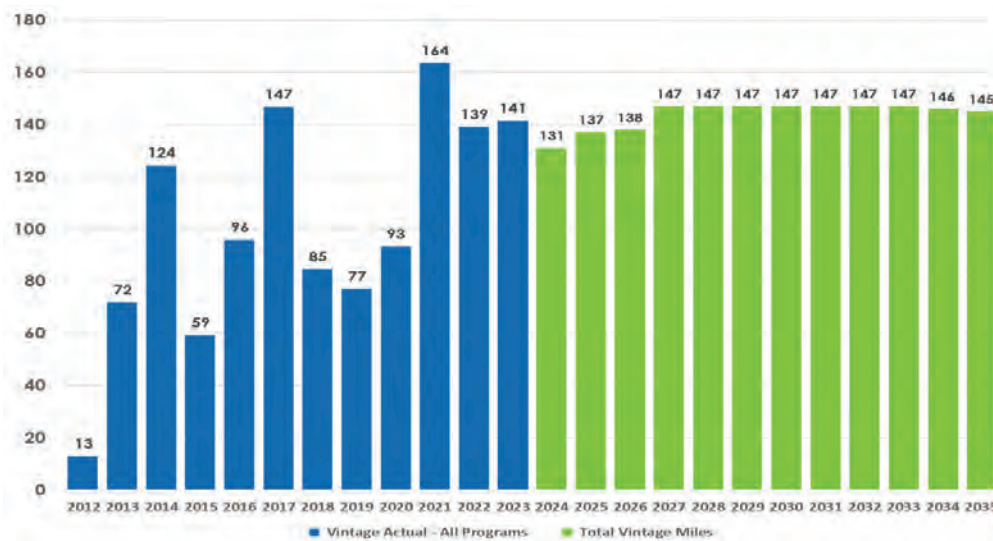


Figure 24 represents the historic 2012-2021 vintage miles retired by all programs and illustrates the new plan for the 1,726 remaining miles to retire from 2024-2035.

Figure 24: Retired Vintage Miles for All Programs



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3. OVERVIEW OF DISTRIBUTION SERVICES AND VINTAGE SERVICE REPLACEMENT PROGRAM

The distribution system includes approximately 1.6 million service lines that connect the distribution mains to homes and businesses. Service lines can contain at-risk materials and are dispersed evenly across the system.

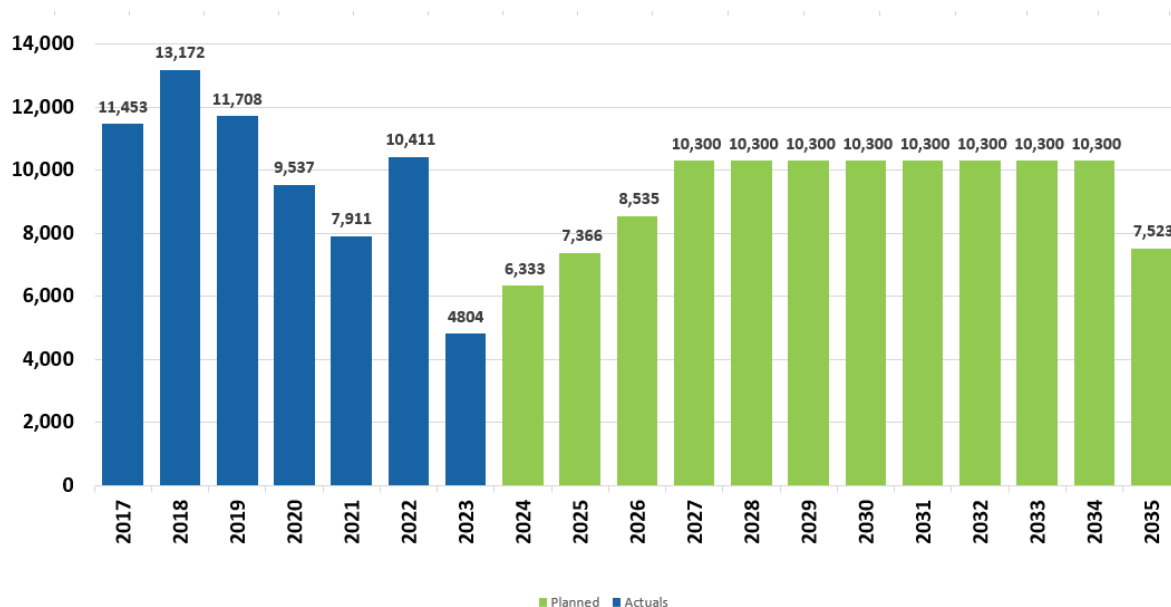
As of December 31, 2023, the system contains approximately 95,829 copper services, or 5.9% of all services and, in a much smaller quantity, the system also contains 6,556 bare steel services and 9,772 services for which the material is unknown.

Consumers Energy launched a Vintage Service Replacement (VSR) Program in 2017. Similar to vintage main replacement, the Company has **streamlined planning across all vintage remediation programs and leveraged construction efficiencies** to minimize customer impact to achieve completion by 2035.

Vintage services are classified into three groups. These services could be replaced by various programs including VSR, Civic, Leak, etc.

1. **In-Grid VSRs** are vintage services attached to a vintage main located within an EIRP project.
2. **Proactive In-Grid VSRs** are vintage **services** attached to a non-vintage main located within an EIRP project.
3. **Proactive Out-of-Grid VSRs** are **vintage** services located outside of an EIRP project.

Figure 25: Remediation Plan by Category for Vintage Services



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4. MAINTAIN PACE OF VINTAGE MATERIAL REMEDIATION

The Company collaborated with external stakeholders, and concluded that completing EIRP and VSR programs by 2035 best balanced customer safety and reliability with affordability.

Benefits to Customers to Remediate Vintage Material

- A target of 2035 positions the Company to remove the risk from assets, and ensures the safety of customers and the public while balancing with affordability.
- Minimizing impact to customers using the grid approach. This approach reduces mobilization and demobilization to the same or nearby neighborhoods.
- Remediating vintage materials reduces methane emissions. Methane studies estimate that cast iron pipes leak almost 23 times more methane than plastic pipes, while unprotected steel leaks almost 10 times more.
- Improving local coordination with municipalities to better align timing of Company-planned work with public works projects.
- Limiting customer safety and reliability risk by more rapidly eliminating higher-risk vintage main pipe and services from the system.
- Improving system efficiency by reducing standard pressure on the system.
- Lowering gas losses and reducing methane emissions into the atmosphere.
- Reducing O&M costs for leak repair and survey as provided in the annual EIRP Performance Report.

5. FUTURE INFRASTRUCTURE RISK REDUCTION PROGRAM CONSIDERATIONS

Consumers Energy is identifying the next areas of high-risk after completion of the vintage material replacements. Currently under consideration are the following higher risk areas:

Services

- The Company has approximately 10,000 vintage service stubs made of copper, bare steel, and X-Trube steel on the system. Service stubs are a result of historical maintenance where a service was not retired or replaced due to limited access to the main.
- Replace metallic services currently not cathodically protected, as the cost of replacement of that service with plastic would be more economic than the cost to add cathodic protection.
- X-Trube services are of 1950-1960s vintage. X-Trube is protective-coated thin wall steel pipe. This material has the highest leak rate. Consumers Energy has approximately 100,000 X-Trube services on the system.

Mains

- Replacement of metallic mains that are not cathodically protected, as the cost of replacement of that main with plastic would be more economical than the cost to add cathodic protection. Cathodic protection did not begin until 1970, but Coated and Wrapped (C&W) mains were installed on the system since the 1950s. These mains therefore were used up to 20 years without cathodic protection. C&W unprotected pipe within the date range above and currently cathodically unprotected pipe would be evaluated and criteria developed to determine the focus area.

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- Transmission Operated by Distribution (TOD) main on Consumers Energy's system that is not replaced under EIRP or other programs must be replaced to lower the SMYS below 20%, which addresses MAOP concerns and reduces operating costs.

6. REGULATOR STATIONS, ODORIZERS, AND STANDS

The Company operates and maintains approximately 657 regulator stations, 1,200 regulator stands, and 100 odorizers as of December 31, 2023. These assets regulate natural gas pressure to ensure safe delivery to customers. Regulator stands include 1" regulator units that feed smaller distribution systems.

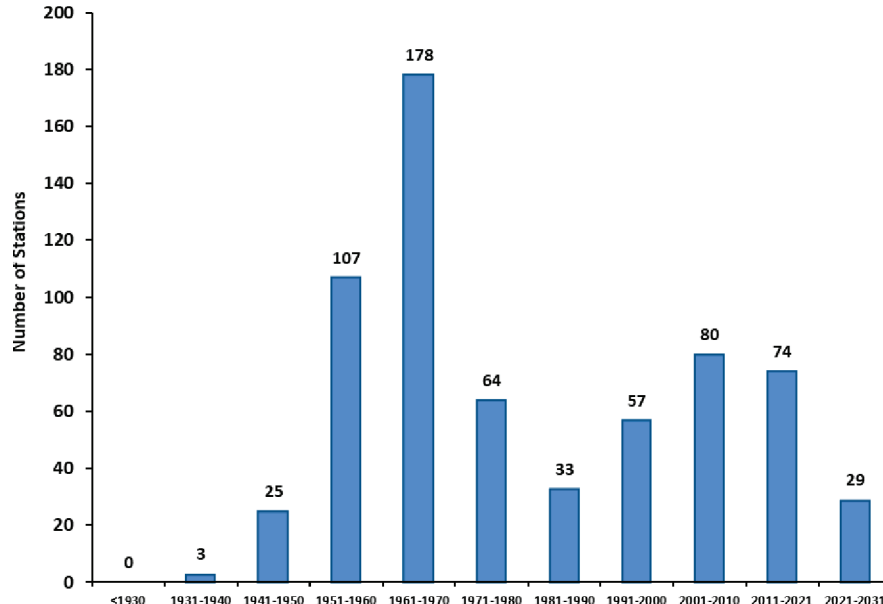
Regulator Stations

Regulator stations reduce pressure supplied from a higher-pressure system, including 2" and larger pipe that feeds a distribution region.

The 10-year goal for the regulator station fleet is to ensure 60% of all regulator stations are not in service longer than 50 years.

Investments made into regulator stations improve safety and maintain the integrity of the asset. These investments include over-pressure protection and SCADA monitoring equipment. Approximately half of the regulator stations were installed before 1971, as shown in Figure 26¹⁰.

Figure 26: Distribution of Regulator Station in Service Dates



The asset life for a regulator station is approximately 50 years. To maintain an average lifespan of 50 years across the fleet of regulator stations, the Company must rebuild 8-12 stations per year at an average cost of \$3 million per regulator station, while retiring four standard pressure serving regulator stations. This equates to an average program cost of approximately \$30 million per year in station rebuilds.

¹⁰ GIS database

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Adding more distribution systems monitoring through SCADA, particularly at regulator stations and odorizers requires technology updates, including upgrades to the SCADA historian and monitoring systems.

These enhancements allow for additional data points to be monitored along with additional storage for that data. See the [Technology](#) section for additional discussion on SCADA monitoring.

Odorizers

Odorizers are assets that add odor to the downstream gas system, which is a critical safety element required by code.

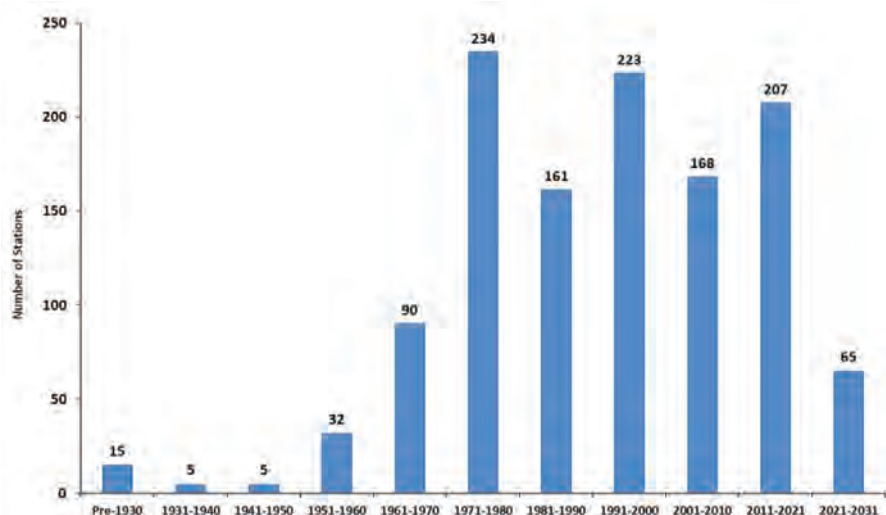
Odorizers are co-located at city gates and transmission valve sites, as required, to comply with State and Federal Pipeline Safety regulatory requirements. They deliver a potent smell notifying someone with a normal sense of smell of a gas leak. The year-over-year goal for the odorizer fleet is to ensure odorizer pumps are 30 years old or less, and that any exceptions are planned for replacement.

Currently, all odorizer pumps in the system are less than 30 years in service. The Plan allows for one odorizer station to be rebuilt per year independent of a city gate rebuild. This is a stable and reasonable trend that should continue for the next 10 years, maintaining all pump in-service dates less than 30 years.

Regulator Stands

Approximately 12.6% of the regulator stands were installed before 1971, as shown in Figure 27. Due to the age and condition of regulator stands, the Company plans to continue investments in these assets comparable to historical years.

Figure 27: Distribution of Regulator Stands Age Distribution



7. LEAK REMEDIATION

Employee and public safety are top priority. Consumers Energy uses regular leak surveys to identify and remediate potentially hazardous gas leaks.

As discussed above, a potent odorant chemical is delivered to the system which allows customers and other third parties to identify gas leaks before they become hazardous. Once notified of a potential leak, a response is provided within 30 minutes and a leak analysis is completed to determine the appropriate leak classification for repair scheduling.

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Factors used in the analysis include gas concentration readings, distance of the leak from the outside of a building, and potential that gas could migrate into a building.

Leak repair scheduling is required per code—Michigan Gas Safety Code 192.703, 192.709, 192.711 and Michigan rules 318 and 327.

Minimum requirements for distribution system leak survey programs outlined in 49 CFR 192.723 are:

- At least once each calendar year, at intervals not exceeding 15 months, a leak survey using leak detecting equipment must be performed in business districts at all locations. This provides an opportunity to locate gas leaks (e.g., gas, electric, and water system manholes and sidewalk/pavement cracks).
- Outside of business districts, leak surveys must be performed at least every five years. For cathodically unprotected distribution lines, leak surveys must be conducted every three years.

Table 4 provides an explanation of how the Company currently classifies leaks on the gas system,

Table 4: Leak Classification at Consumers Energy

Leak Classification and Evaluation of Leak Severity and Prioritization of Repairs	
Leak Classification	Definition
Immediate Action	• Repair immediately (temporary or permanent repair) OR • Take corrective action to reduce the hazardous condition to a level which the leak can be reclassified as a Scheduled Action
Scheduled Action	• Repair or investigate the leak within the specified timeframe: ○ Distribution – 4 months ○ T&S – 4 months • A documented classification is required for each re-investigation. • Permanent repair must be completed within the specified timeframe. ○ Distribution – Within one year of the leak being found ○ T&S – As soon as feasible, based on re-investigation, ongoing review of system outages, and upcoming projects
Deferred Action	• Re-investigate the leak within one year of the date the leak was found. • A documented classification is required for each re-investigation. • If deferred again, re-investigate within a year from the new date.

In January 2025, the Company anticipates new requirements from PHMSA proposed regulatory amendments directed by the *Protecting the Infrastructure of Pipelines and Enhancing Safety Act of 2020* to reduce methane emissions from new and existing gas transmission pipelines, distribution pipelines, compression facilities, and underground natural gas storage facilities.

PHMSA's Leak Detection and Repair or "LDAR" regulations are pending. The anticipated effective date for the proposed regulatory amendments is June 2025. As currently understood, full compliance to the regulations is required by January 2028.

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As of December 2023, the Company has approximately 5,622 total active leaks. In preparation for the anticipated PHMSA rulemaking, the Company is assessing the current leak backlog and how to best address all new leaks.

To balance our pace and prioritization of system needs with affordability, the Company will prioritize and remediate across all programs, such as the leak renewal and vintage material programs, to reduce overall risk.

8. SYSTEM AUGMENTATION FOR RELIABILITY

During periods of high customer demand in cold temperatures, areas are identified with a need to address low delivery pressure or service losses to customers.

System augmentation projects are designed and constructed to enhance capacity and maintain service to customers in these areas.

Examples of large augmentation projects currently planned for 2024 through 2026 include:

- Connecting the existing medium pressure distribution system to a new outlet at the Orion city gate. This requires construction of approximately 1,100 feet of six-inch medium pressure plastic main. The connection to the new outlet enhances capacity and resilience in an area where growth could create low pressure conditions. This project is planned for completion by November 2024.
- Installation of approximately 1,700 feet of four-inch plastic medium pressure main on Rives Junction Road and 1,300 feet of two-inch medium pressure plastic main on Parnall Road in the Jackson area to construct a looped gas supply to reduce risks of low pressure as well as improve resilience on this main. The project is planned for construction during 2026.
- Installation of approximately 1,100 feet of six-inch plastic medium pressure main on Belsay Road that connects with existing two-inch medium pressure main on Burton Estates Drive east of Flint. This project will address low pressure conditions experienced during the winter of 2022-2023 in this area, and improve resilience in this area. Construction is planned to occur during 2025 for this project.
- The Beaverton Shaffer Road east of Alamando Project involves the construction of 7,050 feet of 12-inch steel high pressure main that will be constructed parallel to existing six-inch high pressure main out of the Coleman Beaverton city gate station. This capacity expansion will improve delivery pressure in an area of growing demand. This project is planned for construction during 2025.
- The Crooked Lake Road - Latson Road Project will construct 3,000 feet of six-inch medium pressure plastic main to create a looped system near the end of two existing distribution main systems. This augment project will improve deliverability by creating a back feed and increase the system pressure. The resilience of the system will also be enhanced by the looped system. This project is planned for construction in 2024.
- The Galesburg - Celery & River Street project will construct a 6,900 feet of eight-inch-high pressure steel main from the Galesburg city gate outlet to Comstock Avenue & Celery Street in the Kalamazoo area. This will create a looped system from the Galesburg city gate high pressure outlet, increase the delivery pressure and reduce the risk of customer outages due to damage or failure. This project is planned for construction in 2024.

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9. MAOP RECONFIRMATION AND COMPLIANCE PROJECTS

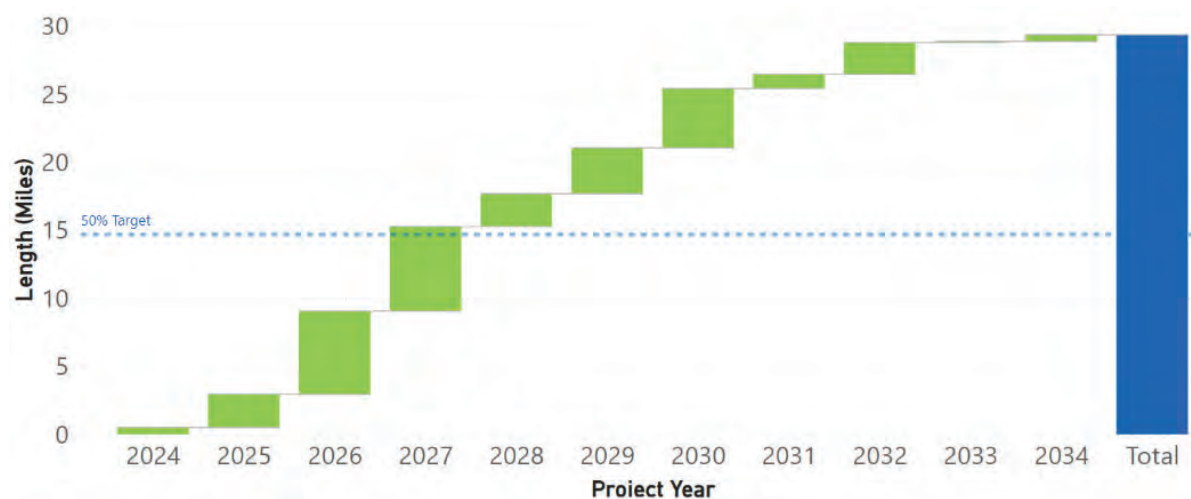
Compliance with State and Federal Pipeline Safety regulatory requirements support the Company's goal of providing safe and reliable natural gas service to customers. Various distribution line segments are being evaluated for compliance with MAOP standards.

Per Federal requirements, the Company must operate gas distribution line segments in a manner consistent with maximum allowable operating pressures. This requires reconfirmation of pressure test records and remediate line segments where no pressure test records exist that meet PHMSA's expectations for traceable, verifiable, and complete documentation.

Compliance milestones related to MAOP projects include a requirement to complete all required actions on 50% of the pipeline mileage subject to MAOP reconfirmation requirements by July 3, 2028, and complete all required actions on 100% of the pipeline mileage subject to MAOP reconfirmation requirements by July 2, 2035. A listing of currently planned MAOP projects is provided in [Appendix F](#).

In addition to the work being done by the Company to evaluate compliance with MAOP standards, it was determined that Line 1080, which serves customers to the west of Kalamazoo, must operate at a lower pressure to comply with Federal requirements. Pipeline modifications are planned for construction during 2025 and 2026.

Figure 28: Planned MAOP Distribution Miles Reconfirmed



10. CUSTOMER METERING

The Company routinely purchases meters, regulators, and related equipment for serving new business connections, the Routine Meter Exchange Program (an MPSC requirement), service renewal meter move-outs, and normal replacement of obsolete or broken meters.

The Company currently uses temperature-compensated diaphragm (regulated and top connect) meters, rotary meters, and purchases gas meter communication modules ("GCM"), gas electronic volume corrector units ("EVC"), and testing equipment.

From 2015 to 2019, the Company installed GCMs manufactured by Itron on more than 1.8 million existing gas meters as part of the AMI and AMR projects. Gas smart meter technology using cellular communications, like the AMI solution deployed for electric customers, was not available.

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In 2020, Itron customers, including Consumers Energy, received end-of-product-life notices for the GCMs and diaphragm meters currently in use.

The Itron announcement regarding the end of life for their diaphragm meter product line impacts approximately 1,600,000 installed regulated diaphragm (“RM”) customer meters. These meters have a different connection method compared to the top connect (“TC”) diaphragm meter, and will require a meter stand rebuild to accept a TC meter. In view of this, the Company began proactively rebuilding RM meter stands in 2020, starting with multi-meter stands.

The new meter stands include a meter bypass that will improve safety and reduce customer interruptions during exchanges, accept the industry standard top connect meter, and will enable the Company to improve multi-meter installation designs by allowing the installation of one master regulator to serve multiple meters.

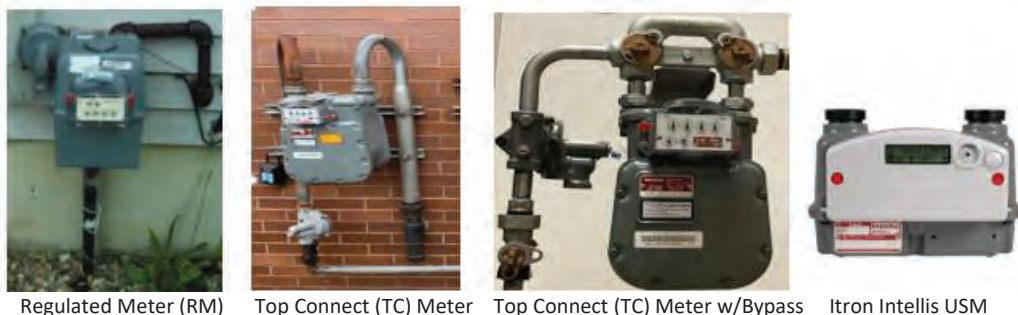
Due to the gas metering technology obsolescence announcements from Itron, the Company is investigating various scenarios, including projected costs and schedule, for conversion of all RM meter stands to TC meter stands. The conversion will require a new TC meter and regulator be purchased to replace the RM meter.

While investigating various metering scenarios, there is an emerging trend among natural gas utilities to use single path ultrasonic gas smart meters (“USM”) for customer metering. This type of meter offers many advantages, including improved measurement accuracy, remote shut-off capabilities, and hi-flow detection.

In 2024, the current USMs available do not include a cellular communications option but that option is expected to be offered in 2025. The Company will continue to evaluate changes in metering technology to incorporate the migration of customers to gas smart meters into the scenarios evaluated.

Installation of TC meter stands will provide the opportunity for future gas smart meter technology upgrades with minimal field changes. The different types of meters, including an example of a residential gas smart meter (Itron Intellis Ultrasonic Meter (USM)), are shown in Figure 29.

Figure 29: Meter Types



11. NEW BUSINESS

The New Business Program consists of adding infrastructure to serve new commercial, industrial, and residential customers. These projects are required in response to customer requests for new gas service.

Customers who request service share in the construction costs with the Company based on the appropriate tariffs approved by the MPSC. During 2022, customers contributed approximately \$7 million to new business project costs, increasing to more than \$10 million in 2023.

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The program costs include the cost of installing mains, services, regulators, and the cost of meter stands to serve new customers. Between the years 2019 and 2023, the Company connected 37,909 new gas services to its gas distribution system.

The Company uses forecasting data from multiple sources to forecast and plan for new business growth. During July 2022, the University of Michigan Research Seminar in Quantitative Economics published its long range economic and demographic projections for Michigan through 2050.

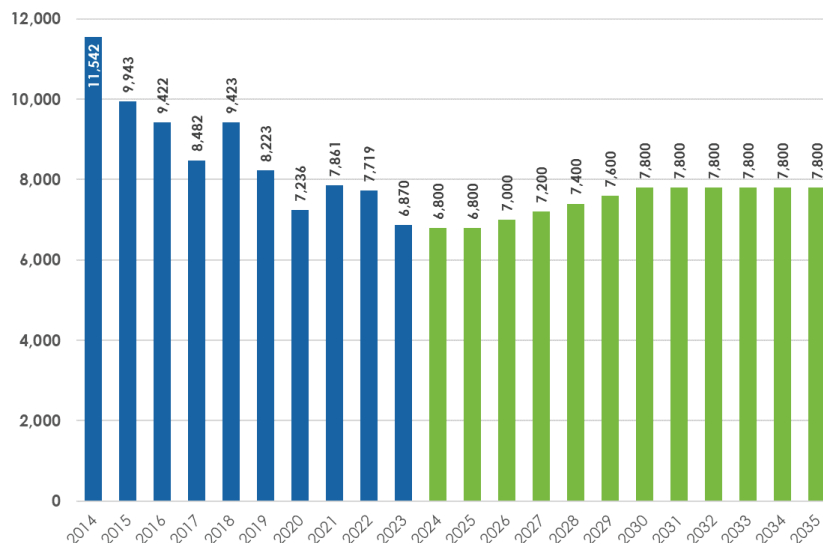
Michigan experienced declines in population during 2020 and 2021 and was expected to decline again in 2022. Population levels are projected to grow through 2046, then begin declining each year through 2050.

During the 2020 to 2050 period, the number of households in Michigan is forecasted to increase to 432,815 households, or 10.9%. The pace of household growth will exceed the pace of population growth as single person households become a larger share of total households due to aging demographic characteristics. Growth rates in many of the counties served by the Company's gas utility should exceed the statewide average. For example, Macomb County and Oakland County are projected to experience population gains of more than 10%.

Based on recent analysis of housing market data, the Company believes that service connection volumes for 2020 through 2023 represent activity levels that are negatively impacted by numerous factors since the onset of the COVID-19 pandemic. This includes periods of construction labor constraints, inflated lumber prices, shortages in electrical transformer supply, and increasing mortgage interest rates. Even prior to 2020, it is generally accepted that the pace of new housing construction in Michigan has not kept pace with demand. As a result, current constraints on the supply of available housing make it difficult for new households to find affordable housing.

The Company reasonably expects annual connection volumes to grow incrementally at a modest rate of approximately 200 services per year beginning in 2026 and stabilizing around 2030 as shown below in Figure 30. Housing starts economic indicator projections provided by S&P Global Market Intelligence in May 2024 (Michigan forecast) and the National Association of Home Builders in April 2024 (U.S. forecast) both support growth in projections of housing construction activity starting in 2025.

Figure 30: New Business (Number of Service Connections)



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The Large New Business Program includes new customer connection projects where the estimated infrastructure cost exceeds \$500,000, a facilities agreement is required for unpredictable operations, or the connection is deemed necessary for special tracking and therefore included in a separate sub-program.

Projects are generally created under this program when the requesting customer has signed a contract with the Company documenting the load requirements and revenue expectations.

There were two projects completed under this program in 2024:

- A 1-mile extension of 8" high pressure steel main to serve a battery manufacturing facility in Marshall, with an estimated annual usage of 2 billion cubic feet (Bcf).
- A new plant that supports the semiconductor industry in Hemlock, extending approximately 4,500 feet of 6" high pressure steel main to support an estimated 0.5 Bcf of added annual gas usage.

In 2025, there is an approximate 200-foot extension of 8" high pressure steel main to serve a natural gas-fired electric generation facility expansion in the Lansing area, with an estimated annual usage of 2 Bcf.

12. ASSET RELOCATION CIVIC IMPROVEMENT

According to the 2023 Report Card for Michigan's Infrastructure, published by the Michigan Section of the American Society of Civil Engineers (or "ASCE"), Michigan is making progress in reversing underinvestment in the state's infrastructure.

State and Federal funding sources have included \$3.5 billion in bond funding from the *Rebuilding Michigan Program* and \$4.7 billion from the *Building Michigan Together Plan*. The 2021 Bipartisan Infrastructure Law also provides \$11 billion to address needed infrastructure projects. The ASCE's 2023 Michigan Infrastructure Report Card assessment shows modest improvement in the overall grade from a D+ in the 2018 report card to a C- in the 2023 report card. Roads and Stormwater infrastructure grades have improved from a D- in 2018 to a D in 2023.

Civic Improvement Relocation projects frequently involve replacement of vintage mains and services, avoid third party damage to non-vintage facilities, and reduce the potential for leaks when infrastructure contractors are working around vintage main.

The annual replacement of vintage mains and services are documented as part of Attachment 9 *Non-EIRP Distribution Main Replacement Project Metrics*, which is included in the Company's enhanced infrastructure replacement annual reports.

From 2019 - 2023, more than 181 miles of metallic pipe was retired through the construction of Civic Improvement projects.

13. DISTRIBUTION ASSET FINANCIALS

Consumers Energy's largest capital increase is due to vintage material remediation. The Company believes it can lower remediation costs through economies of scale and work management improvements.

With the extension of the EIRP and VSR programs to 2035, the Company expects the total main and services remediation to cost approximately \$5.2 billion. The capital investment plan for the entire distribution asset class is shown in Figure 31.

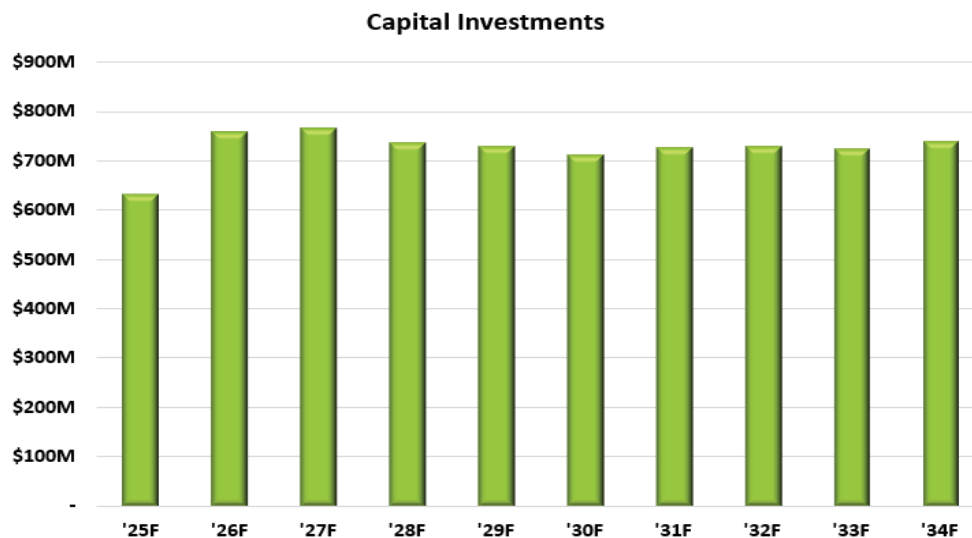
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Overall, this investment plan for the distribution asset class aligns with the objectives by **reducing asset risk** that is closest to the customer (safe), ensuring the **system is able to deliver gas as required** (reliable), **balancing the pace of system improvements** to preserve customer affordability (affordable), and **reducing the amount of emissions** in this system, which equates to more than one-third of the Company's methane emissions (clean).

Figure 31: Distribution Capital Investment Plan



V. Operational Capabilities

Operational capabilities surround people, process, and technology to enable achievement of the 10-year objectives, goals, and outcomes.

A. People – Talent and Workforce Approach

The Company is focused on how to safely deliver for customers by ensuring Consumers Energy has the right people, with the right skills, at the right place and time.

1. INTERNAL RESOURCES

- The Company is placing a **strong focus on hiring skilled trade workers and engineers, and creating a diverse, equitable and inclusive employee experience** to ensure the Company is attracting and retaining the most qualified candidates.
- To prepare for the skills of today and tomorrow, Consumers Energy has developed a **full-scale Gas City Training Village** that trains coworkers through real-time, hands-on situations and continue relentless focus on making safety the top priority.
- To prioritize asset protection, the Company is **evolving cybersecurity skills** as technology becomes more integrated with assets. As customer expectations shift, the Company will need a workforce skilled in leveraging the power of data, and empathy, to meet customer needs.

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- More than 1,400 coworkers inspect, maintain, and build our natural gas system. This framework facilitates the **matching of coworkers, capabilities, and qualifications to the requirements of the business to minimize the risk and costs of turnover**. The Company also developed a competitive Michigan workforce of approximately 500 coworkers that is focused specifically on the natural gas infrastructure.
- The Company focuses on attracting, developing, and retaining engineering talent through the Company's Entry Engineer Program and Engineering Intern Program. These programs build technical engineering and design capabilities, ultimately ensuring adequate pipeline for engineering talent specific for the Company's natural gas system.

2. DIVERSITY, EQUITY & INCLUSION IN THE ENTIRE TALENT LIFECYCLE

As one of Michigan's largest employers, Consumers Energy is building a world-class, inclusive workforce where diverse groups of people feel safe and welcome at work. The Company workforce strives to be wholly reflective of the communities it serves. To drive innovation and provide the best energy products, Consumers Energy is creating a pipeline to become an employer of choice for under-represented communities in high demand occupations. To ensure an adequate talent pipeline, multiple forums are used to attract, retain and grow people described in detail in [Appendix D](#). A few examples include:

- **Diversity of our line workers:** To ensure every co-worker has an equitable opportunity to succeed, talent pipeline programs are built in diverse communities to increase equitable access to our skilled-trade positions.
- **Connecting youth with energy innovation:** Over 300 Consumers Energy employees volunteer their time as Talent Ambassadors with K-12 student throughout the communities it serves to discuss career pathing and other utility-related professional development opportunities.
- **Apprenticeship training programs:** Consumers Energy offers in depth training programs designed to further the skills, knowledge and ability of its existing workforce including certification program recognized by the Department of Labor as a certified Apprenticeship.
- **Workforce development opportunities:** Development opportunities include community engagement, hardware manufacturing, hardware/software design, data analytics, installation, and operations. To attract talent from the communities served by this project, Consumers Energy will work to better understand workforce challenges in specific areas and find ways to address concerns for skilled labor and professional careers.

Regarding skilled labor, the project will involve the installation of new hardware throughout the service territory. Consumers Energy and its technology vendor, Utilidata, will work with labor organizations on new training material and field demonstration guides intended for metering technicians.

Regarding professional careers, Consumers Energy will work with institutes/schools within Michigan on coursework that addresses artificial intelligence predictive modeling for the distribution grid. As part of this process, Consumers Energy will explore the possibility of creating an internship program that places students that have completed the relevant coursework into data analytics, software design, or grid modernization teams.

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3. DIVERSITY, EQUITY & INCLUSION MOVEMENT STANDS

To quantify this work, several DE&I Movement Stands exist including Culture, Talent, Supplier Diversity and Philanthropy. These stands include multi-year goals that support our strategy, are aligned with our Executive DE&I Council, and represent measurable aspirations. See [Appendix E](#) for further information.

Table 5: CE DE&I Movement Stands

Our Movement Stand	2024 Measurement	2025	2028
Culture: The Company includes and values people of all backgrounds in the company and culture.	+2 increase from 2023 score on DE&I Index	+2 over YE	93
Talent: Every current and future coworker has an equitable opportunity to succeed.	Engineering roles at/above labor market availability: 49%	54%	79%
	Operational roles at/above labor market availability: 53%	58%	63%
Philanthropy: The Company creates equitable, sustainable change to support social justice initiatives throughout Michigan.	\$5 million	\$15M	\$40M
Supplier Diversity: The Company will double its spending with diverse suppliers to achieve 1st quartile.	11.90%	14%	1st Quartile

4. ENERGY AND ENVIRONMENTAL JUSTICE (EEJ)

Consumers Energy is dedicated to our purpose to achieve world class performance delivering hometown service, measured by a triple bottom line - **People, the Planet, and Michigan's Prosperity**. This commitment guides decision making for an equitable clean energy future.

CMS Energy is dedicated to engaging communities to understand unique needs and provide platforms for collaboration. Responsibility for EEJ is designated to the Diversity, Equity and Inclusion Department as well as our Environmental Quality and Sustainability Department.

In addition, Consumers Energy is currently developing a comprehensive EEJ Strategy Playbook, to guide both internal and external actions, and emphasize the importance of enhancing more equitable and inclusive community stakeholder engagement pathways.

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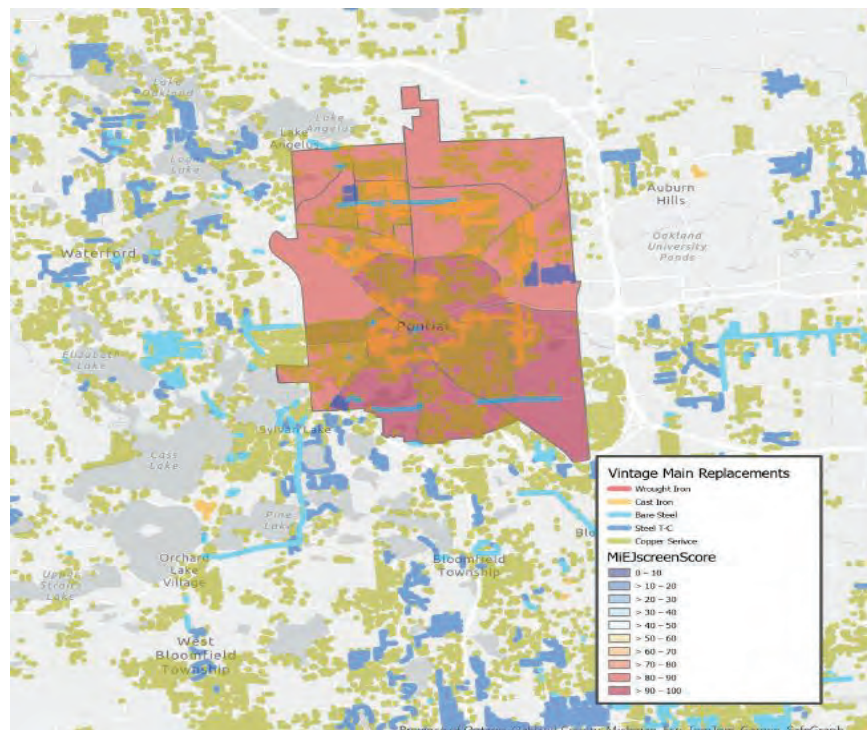
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The Company is assessing how to best incorporate EEJ considerations into the overall planning process across all asset classes.

As shown in Figure 32, the MiEJSreen tool, operated by Environment, Great Lakes and Energy (EGLE), will be used to identify the highest impacted areas within the Company's service territory. Regions with scores of 80+ is defined as an EEJ community. The Company is seeking to better understand factors including vintage materials and vintage systems in these areas.

Figure 32: MiEJSreen illustration - Pontiac



B. Process – Operating System Approach

The Company is committed to operational excellence. At Consumers Energy this means achieving a state of performance that enables the Company to deliver on its purpose.

Through application of Lean principles (The CE Way), work management enhancements, and the Gas Safety Management System, the Company is transforming how it operates to improve performance, customer experience, identify efficiencies in the business, and minimize risks.

1. THE CE WAY

Consumers Energy's purpose of 'CMS Energy: World Class Performance Delivering Hometown Service' means ensuring the Company delivers safely, reliably, affordably, and with the highest quality. Examples of performance improvements can be seen across the organization because of the Company's Lean journey.

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In 2016, Consumers Energy began its Lean journey, The CE Way, to provide the best value for customers through a culture of continuous improvement. This is the adaption of the Company's lessons learned in manufacturing and other industries applied to design, construction, and operations of utility assets to continuously improve safety, quality, cost, delivery, and morale.

In 2017, the Company launched the 4 Basic Plays (Visual Management, Operating Reviews, Problem Solving, and Standard Work) as a prioritized approach to begin implementing the CE Way. These basic plays establish a strong capability for delivering value to customers and achieving breakthrough performance. The CE Way Basic Plays are interdependent and achieve maximum effectiveness when implemented together.

The next step in our CE Way journey is to combine data with the Basic Plays to deliver a CE Way + Digital approach. Combining the CE Way with data increases the speed and accuracy of decision-making.

2. WORK MANAGEMENT AND CONTRACTOR OVERSIGHT

As part of the operational excellence process, **work management is a key to successful execution of this Plan.**

Work Management

Work Management provides a well-structured, predictable, and repeatable process, and describes the lifecycle from intake and system planning all the way through Engineering, Scheduling, Field Operations, and Closeout.

Effective work management eliminates defects and maximizes efficiency and productivity. The Company is assessing how digital tools in every step of the end-to-end process can further enhance productivity and cost efficiency.

Digital tools are an important component of eliminating unnecessary steps to simplify processes and make them as efficient as possible. See [Technology](#) for specific digital investment plans.

Enterprise Contractor Oversight

Enterprise Contractor Oversight ("ECO") is a key initiative for the effective oversight of contracted work for higher risk (level 3 & 4) activities.

ECO provides a framework for governance, performance monitoring, and controls of contractor work across the entire Consumers Energy Enterprise, including gas, electric and project management. The goals of ECO are to:

- Design and implement a Center of Excellence ("CoE") covering all aspects of Contractor Oversight.
- Implement risk-based standardized contractor prequalification processes, procedures, and tracking metrics.
- Develop remote inspection capability allowing for oversight of all contractor operations.
- Create standardized contractor performance metrics paired with common contracts, in line with Consumers Energy's Safety Culture.

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3. GAS SAFETY MANAGEMENT SYSTEM (GSMS)

The Company is engaged in continuous improvement of the Gas Safety Management System (“GSMS”), identifying and mitigating risks related to the operation of the gas system.

GSMS is the Company’s approach to conforming to the requirements of API RP 1173. The elements and related processes included in the GSMS are referenced in Figure 33.

In support of continuous improvement, the governing policy for the GSMS was expanded in 2024 to encompass additional areas of the utility. The CE leadership-approved policy states “Consumers Energy employees and contractors will comply with regulations, adhere to and continuously improve all Company natural gas, electric, and supply policies and procedures to improve overall system safety and reliability for Michigan and our co-workers.”

To support the policy in action, GSMS maintains visibility of key performance indicators to leadership resulting in identification of improvement opportunities that enhance gas asset safety. Improvement opportunities are managed through the enterprise corrective action program developed as a part of GSMS.

Figure 33: Overview of Gas Safety Management System



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4. ENTERPRISE CORRECTIVE ACTION PROGRAM (“ECAP”)

The ECAP provides an enterprise standard and governance, supported by an auditable, electronic system of record (DevonWay). This enables reporting of potential and identified non-conformance events and issues. This process primarily supports the Incident Investigation, Evaluation & Lessons Learned element outlined in our GSMS program in accordance with API RP 1173.

A dedicated ECAP team, supports an industry benchmarked CAPA process outlined in the ECAP standard as follows:

1. *Issue Identification* – System, Asset and Process Safety issues/findings and/or events.
2. *Evaluation of Issue* – Risk ranking (impact and severity) in the context of Safety, Regulatory Compliance, Financial, Environmental and Reputation.
3. *Detailed Investigation* – Utilizing a systematic methodology to identify root cause(s) so corrective action plans address more than just symptoms, but systemic issues.
4. *Implementation* – Corrective Actions planned, approved, assigned and implemented as designed.
5. *Verification* – Confirmation with objective evidence that the issue has been adequately addressed and risk mitigated/eliminated.
6. *Effectiveness/Sustainability Review* – A periodic assessment post verification that recurrence of original issue is no longer present, and actions once implemented are sustained.

Performing this standard CAPA process prioritizes issues commensurate with the evaluated incoming risk. This process resulted in a year over year decrease in non-compliance violations and enterprise risk on the system.

5. GAS DAMAGE PREVENTION STRATEGY

The Company’s vision for Damage Prevention is to **improve compliance with Public Act 174 through reducing and preventing excavation damages to the gas distribution system** in support of employee and public safety.

Damages are caused by home/business owners or excavators digging around Consumers Energy gas distribution assets. The primary causes of damages are due to:

- Inadequate excavation practices (failure to hand dig, failure to maintain marks, improper backfilling).
- Failure to call MISS DIG and working outside of valid ticket window.
- Locating practices not sufficient (mismarked facilities, record errors, system issues).

A series of field programs are deployed to support the 3rd party excavating community with industry best practices including:

- Proactive outreach program – risk-based outreach program to assist the excavating community proactively including coaching and training, locating assistance.
- Repeat damager program – step escalation program targeted to mitigate the highest risk excavators.
- No-call damager program – coaching and enforcement program to mitigate the highest risk excavators not properly using one call processes.

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The Company is also planning to engage in discussions with repeat third-party damagers and collaborate with regulatory stakeholders, to continue to improve in this area. Key considerations in the strategy are **focused on behavioral change, including a combination of trust, relationships, and accountability.**

In 2023, a dedicated gas distribution workforce was established to improve timeliness, accuracy, and excavator communications on projects and serves specific Consumers Energy needs leading to improved timeliness compared to historical performance. This will be achieved by having a single utility focus for ticket management.

Another key objective is quality, with **improved staking accuracy performance** compared to recent historical data. **Improved communications with the excavating community** will be enabled by use of enhanced positive response. The Company tracks timeliness and related cause of contractor damages to show the benefits realized from the dedicated model.

In 2024, the Company expanded the dedicated gas distribution workforce to include 30% of total ticket volumes.

In the first quarter of 2025, the Company plans to expand the dedicated workforce to include 100% of total staking ticket volumes.

Plans for the dedicated workforce implementation were accelerated after the analysis of 3rd Quarter 2024 requests for proposal resulted in a dedicated workforce approach being more economical when compared to a shared workforce approach for the remainder of the companies' gas service territory. This is, in addition, to the realized performance improvements in timeliness and staking accuracy.

6. LOST AND UNACCOUNTED FOR GAS

a. Overview of Lost and Unaccounted for Gas

Lost and Unaccounted for ("LAUF") Gas is the difference between the total measured transmission and distribution pipeline system gas volumes received less gas volumes delivered.

A 'loss' occurs whenever measured receipts are greater than the deliveries of the pipeline system. Conversely, a 'gain' occurs whenever measured deliveries are greater than the measured receipts. Factors that contribute to gas losses and gains are described in section b.

$$LAUF = (Total\ Measured\ Input\ Volumes - Total\ Measured\ Output\ Volumes)$$

The Company calculates LAUF annually, based on 12 months ending July 31. This is the percentage used for reporting purposes. There is natural variability in the yearly data due to factors such as weather and load distribution.

As shown in the chart in Figure 34, the overall trend shows an average loss of 1.48%. Through general rate cases the Company recovers LAUF expenses based on a five-year average of line losses, based upon current cost of gas.

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Figure 34: LAUF Historical Reporting (volumes for 12 months ending July 2007-2024)



b. Factors Contributing to Gas Loss

There are many factors that contribute to gas losses or gains. The most common factors are related to equipment, measurement accuracy, theft, and leaks.

- Equipment issues can be incorrect sizing, condition, and location of meters and meter components.
- Incorrect calibration of meters and/or transmitters, data interface, and communication errors between systems can also cause inaccuracies.
- Other factors are inaccurate estimates of lost gas during venting of gas or when damages to the system occur, and stolen gas.

c. Plan for LAUF Monitoring and Control Improvements

1. Smart Energy and Gas AMR

With the completion of the AMI and Gas AMR projects, the Company will incorporate monthly calendar reads for the calculation of delivered gas to sales customers, reducing the impact of cycle billed reads. This mitigates the unbilled volumes inherent in the lag between meter reads and customer billing.

2. Gas Quality and Measurement Improvement Projects

Pressure, temperature, and gas quality are the contributors to accurate measurement. To increase measurement accuracy for volume, heat content, specific gravity, pressure, and temperature effects, the Company plans to replace 230 orifice meters, which range in age from 50 to 65 years old, using highly accurate ultrasonic meters ("USM") and install 20 additional gas chromatographs across the state over the next 15 years.

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3. Increase Utilization of Flow-Cal Enterprise Gas Automation Software

Gas system segmentation within the Flow-Cal system includes installation of boundary meters to enable system segmentation and tracking of LAUF by zones (segments). Further refinement into zones results in improved LAUF tracking and issue identification.

4. Infrastructure Improvements

The age and materials of the distribution system affects LAUF. Natural deteriorations in vintage materials causes corrosion and cracking in piping which results in leaks across the system. Replacement of vintage materials and other aged assets should reduce gas loss over time.

C. Technology – Digital Approach

Digital capabilities optimize compression and storage assets, modernize the distribution and transmission systems, incorporate predictive and condition-based maintenance, transform work management, and ensure physical and cybersecurity of assets. From a digital perspective, Consumers Energy's is focused on:

- Faster delivery with new practices such as adopting agile frameworks.
- A move to cloud solutions where and when appropriate.
- Data as an asset and deployment of larger-scale analytics.
- Deployment of a consistent asset management system/framework.
- Deployment of integrated control systems for system automation.
- Continuous operational improvements through automation.
- A commitment to ensure digital investments do not introduce unnecessary risk to the Company or its customers, and to protect sensitive data and critical infrastructure from cyber threats.
- Evaluating current strategic platforms to ensure they are fully leveraged/optimized, and implementing enhancements as needed to provide new functionality for emergent business and customer value.

Evaluating new platforms that can further enhance the Company's capabilities. This is in alignment with API RP 1173, "11.2 – Management shall also periodically evaluate new technology that may enhance pipeline safety."

1. LOST AND UNACCOUNTED FOR GAS

Supporting digital capabilities including platforms, tools, processes, and frameworks enable business outcomes. Key capabilities are shown below:

- **Data and analytics** – Accurately manage and collect data, integrate across systems and applications, and create insights to inform business outcomes and decisions.
- **Data management and governance** – Manage data as an asset through data life cycle process (create, update, and delete) for master data management.
- **Data integration** (Application Programming Interface Fabric) – Integrate data across platforms, systems and applications with a reusable framework to increase speed of delivery for new integrations, and avoid costs associated with point-to-point integrations.
- **Work automation with artificial intelligence** – Automate repetitive tasks through software to improve efficiency and productivity. This includes low-code/no-code application platforms that enable employees across the Company to build simple applications to automate their business processes.

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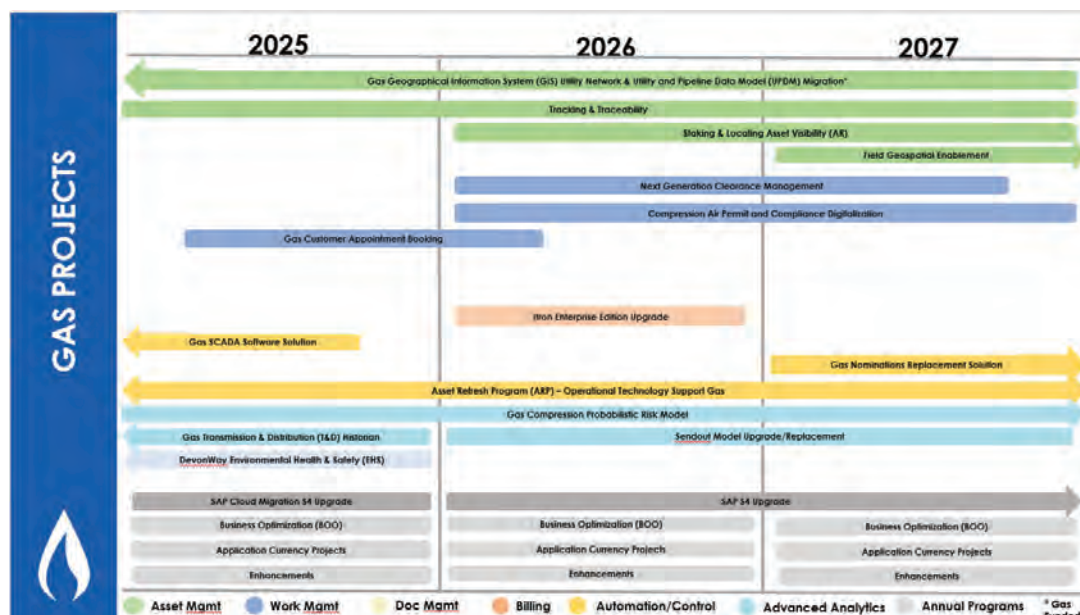


- **Cloud platform enablement** – Manage scalable solutions, platforms, and technical infrastructure remotely over the Internet to flex capacity with demands. Consumers Energy is currently using cloud solutions by adopting Software as a Service (“SaaS”) and Platform as a Service (“PaaS”) offerings. Key platforms include EWN Services Operator Qualifications for tracking and renewals of employee’s qualifications, ARCOS solution for employee schedules and callout, ESRI’s ArcGIS Online for creation of focused mapping and analysis solutions, ServiceNow, Office 365, and SAP SuccessFactors are examples of SaaS solutions that have been implemented.
- **Cloud technologies** – Integrate data and run advanced analytics at scale using leading machine learning and artificial intelligence frameworks.
- **Electronic content management** – Manage enterprise content/data to enable digital document management for retention, compliance, and privacy.
- **IT Infrastructure and Communications Technology** – This technology is critical to business applications, providing a strong backbone required for supporting 24 x 7 Operations. The technology is key to manage data, voice and multimedia communications through a reliable and redundant network infrastructure with robust frameworks to protect physical and cybersecurity assets. The technology also supports communication for truck connectivity, virtual private networking, mobile phone connections, and field communications. Field communication via 800 MHz radio provides dedicated mission critical connectivity between dispatch and field operations. The Company recently migrated to the Michigan Public Safety Communications System to improve coverage and reduce costs.

2. TECHNOLOGY INVESTMENTS

The Plan includes digital investments in the following areas: asset management, work management, system automation and control, security and privacy, and advanced analytics. An overview of digital projects over the next few years is shown below in Figure 35.

Figure 35: Overview of Consumers Energy Digital Projects



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a. **Asset management** investments include the ability to store, manage, and track Company gas assets as part of asset life cycle management and predictive maintenance practices.

- Projects include the transformation of the Enterprise gas GIS system to the new industry standard Utility Pipeline Data Model, and implementation of the Utility Network extension to merge the transmission and distribution into one data model. This will allow:
 - A unified Gas GIS by combining Transmission and Distribution networks into their respective GIS data models: Gas: Wells → Meters.
 - Enhanced Data Quality Control via gas rules managed at the system level.
 - Develop geospatial insight on a more granular asset level, and more accurately define how each part of a utility system is connected.
 - System Tracing (Upstream, Downstream, Pressure Zones, Protective Device, etc.).
 - Enable future benefits such as GIS editing in the field, data capture via GPS/Bar Code scanning, and GIS-enabled design.

The Utility Network will enable transformational enhancements in the way we operate, making us more efficient, more reliable, and safer.

- In driving to a single source for the geospatial location of Company gas assets, Consumers Energy is migrating gas service records into GIS. Completing this effort will create a single source for distribution asset location, simplify processes, reduce opportunities for inconsistencies in data sources, enhance the ability to interrogate and improve the data, and increase public safety.
- Extending the implementation of ProjectWise for Gas Distribution assets facilitates a management of change process for gas engineering design and gas system configuration changes—increasing public and employee safety and regulatory compliance with complete and accurate records that are easily accessible and searchable.
- Advanced Methane Detection using Picarro technology helps prioritize and plan for the accelerated pace of vintage material remediation, perform risk-based surveying in the compliance leak surveying process, and measure emissions from distribution pipelines.

The Company currently uses asset-based compliance leak survey to perform compliance leak survey. It is a method whereby individual assets are surveyed based on the compliance due date regardless of where the asset is located within the gas system. Grid-based compliance leak survey is performed in quarter-mile sections. The survey will include all in-scope assets within a quarter-mile section at the same time. The cadence for returning to perform compliance leak survey in that area again is based on the asset makeup within that area. The frequency is determined by the compliance schedule of the asset makeup within that area.

b. SCADA historian secures data required for gas accounting, operational planning, and predictive maintenance. The Company will require live digitized records and performance of all assets to enable predictive calculations and a potential future state of machine learning. The SCADA historian is undergoing a replacement with a modern platform which will **improve administrative applications and will streamline historic data accessibility, visualization and analysis**. The Historian Project supports the broader Gas SCADA Transformation Roadmap discussed in part d. The Historian Project completion is synchronized with the Gas SCADA replacement project completion.

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- c. Work management and field service management solutions provide electronic capabilities for work forecasting, resource and work planning, work scheduling, dispatch, field execution and closure, tracking performance and work trends, and reacting/responding to emergencies.
- Advanced fleet telematics enhance the visibility of crew and work location, create opportunities to improve crew and work dispatching.
 - Modern technology tools are also required for work groups still using paper forms, including the Gas Measurement, Regulation, and Pipeline & Storage and Gas Construction.
 - Enabling contractors with an electronic work management system supports improved accuracy and timeliness of work. Fully digitizing the work management experience supports improved customer service by providing real-time work status.
 - Improved field mapping and graphics functionality enables better visibility of maps and drawings in the field including the ability for field redlines/edits to ensure records are accurate.
 - Advanced planning and scheduling work management features will lead to efficient work assignment to field employees and other resources for improved customer service.
- d. **SCADA** is comprised of software and hardware components used to monitor, analyze, and control real-time data from field devices on the gas system. Field data from measuring devices (sensors, valves, meters, etc.) is collected using a Remote Terminal Units (“RTU”) and then relayed to Gas Control where software is used to display for operators to analyze and interact with.
- **Gas Control SCADA Transformation Roadmap**

The Company’s system has outgrown the current gas SCADA software solution, Citect implemented in 2000. As the solution ages, increased effort is required to address obsolete application and database software architecture, and enhancements to the system are limited.

The current gas SCADA tool limits increased system health monitoring and preventative maintenance capabilities due to the inherent complexity. Replacement of the gas SCADA Citect software is planned for completion in 2025. Transitioning to a more advanced gas SCADA software system provides:

 - a. Integration with GIS for system control reliability.
 - b. Gas system visibility and transparency.
 - c. Deployment of RCVs integrated with the gas SCADA system.
 - d. The future ability to control and perform remote shut-off to preserve safety and reliability of the gas system.
 - **Remote Terminal Unit (RTU) Solution**

The current RTU solution, called SixNet, was implemented in 2006. The SixNet hardware and software required to program and operate RTUs are no longer supported by the original equipment manufacturer (“OEM”).

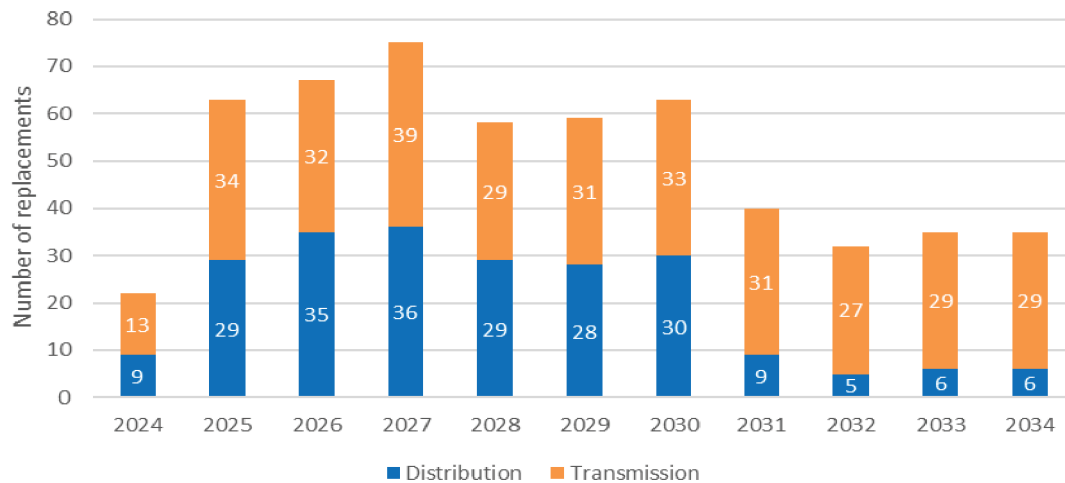
New RTU models support DNP3 protocol offering multi-channel communication and enhanced Cyber Security protections. The plan is to replace the existing SixNet RTU platform with a new platform, shown in Figure 36.

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Figure 36: The 10 Year RTU Replacement Plan



- e. **Security and privacy** investments secure key Company assets, including physical locations with card access.

Transitioning from a lock-and-key system at city gates to card access centralizes access control and enhances security. The system is capable of both single-factor authentication (card only) and two-factor authentication (card and code).

- Currently the Company deploys two-factor authentication in only the most sensitive physical areas (generally North American Electric Reliability Corporation (“NERC”)/Critical Infrastructure Protection (“CIP”) medium assets). Two-factor authentication is under investigation for gas facilities over time, as security and regulatory requirements mature.
- Card access management is a single, centralized system and process for the Company. Processes are in place to deactivate badges immediately upon notification of separation from the Company and automatically when not used for specific periods of time.
- Modernizing and standardizing the gas SCADA network at gas compressor stations and control rooms to mitigate cyber security vulnerabilities, and to allow compliance with API requirements to provide a secure gas system that meets customer needs.
- Implementation of security infrastructure to enable more visibility and protection of critical infrastructure, including but not limited to, perimeter fencing, security cameras, and two-way audio.

- f. **Advanced analytics** investments include data collection, standardization, and analytical model frameworks.

- Consumers Energy plans to apply advanced statistical and predictive modeling tools and techniques for deriving insights from gas system data. Such projects enable damage prevention predictive analytics and customer-level load profiling and predictive models with propensity ranking for future gas DR programs.

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- Integrating operational gas system data to a consolidated data repository will strengthen operational reporting and analytical capabilities. For example, customer value modeling efforts revealed the need to invest in a repeatable capability for rapid system configuration modeling to run scenarios as future supply states and customer demand evolve.

The Company's current maintenance practices vary among assets. For example, compressor units use a mix of usage-based and time-based maintenance for large parts. This means parts are replaced based on throughput or time since last replacement. Select smaller parts use a break-fix approach.

Moving all maintenance plans to *predictive* instead of reactive schedules will help to better allocate resources while maintaining integrity of safety and reliability.

f. Probabilistic Risk Model

To manage system risk, the Company uses multiple indexed risk models for asset areas, which are used throughout the gas utility industry. These models have changing risk factor weightings annually that affect project planning and resource requirements.

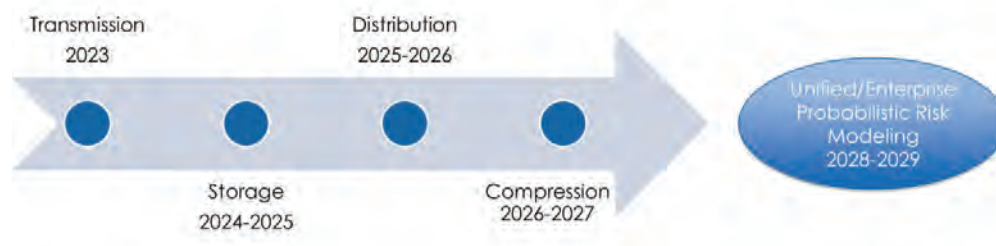
Gas pipeline systems have a complex set of inputs, and their performance is based on a series of possible outcomes controlled by a range of probabilities.

The Company's goal is to implement probabilistic risk models for transmission, compression, distribution and storage by 2030.

The industry is shifting from relative index risk models toward probabilistic risk models. PHMSA defines probabilistic as *a model with inputs that are quantities or probability distributions, with outputs that can be expressed as probability distributions*.

Model logic attempts to adhere to laws of probability. A probabilistic risk model helps better allocate resources by making decisions based on data associated with impact and probability. Figure 37 shows a roadmap for implementing Probabilistic Risk Modeling across the major asset classes between 2023 and 2029.

Figure 37: Probabilistic Risk Model Upgrade Roadmap



This roadmap will not only account for the entire system but will also result in a Unified Model. The benefits of the unified model are as follows:

- A clear understanding of the existing and projected future performance of assets including reliability and integrity.
- The ability to articulate risk and investments to regulators and stakeholders.
- The capability to make budget decisions based on risk and reliability across the entire system.
- Assurance the investment profile is aligned with the Enterprise risk profile.

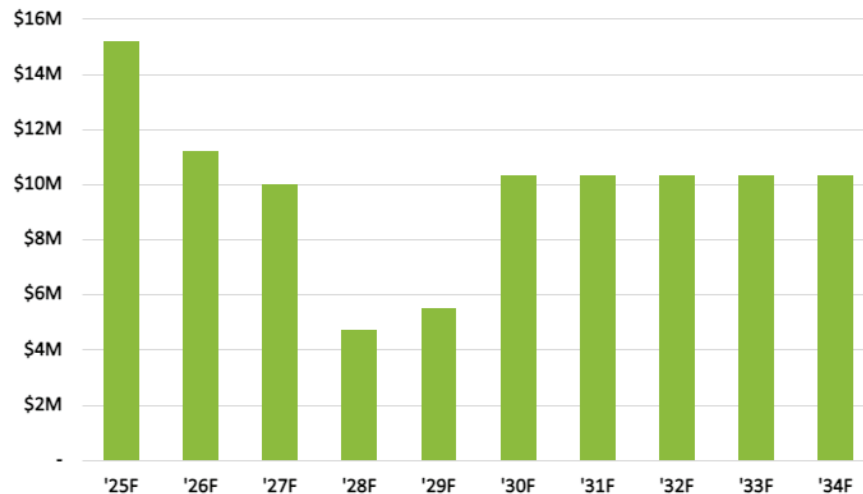
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Figure 38 shows forecasted capital investments for this digital implementation into the gas system and will support many gas projects and programs.

Figure 38: Digital (IT) Capital Investment Plan



Equally as important as new digital investments in technology as an integral element of the Plan, is the ability to properly maintain technology assets after implementation.

Prudent technology asset management and replacement programs, system monitoring, timely upgrades, and continuous system patching to mitigate cyberthreats are necessary Information Technology (“IT”) O&M expenditures required to sustain business operations, and provide the experiences customers expect.

NOTE: More information on Digital, including a corresponding financial summary, is available in the Company’s *Digital Three-Year Plan*.

VI. Gas System Decarbonization

Consumers Energy is implementing industry-leading plans to reduce greenhouse gas emissions created by its natural gas operations. This includes modernizing its natural gas system to achieve net zero methane emissions from its operations by 2030.

Consumers Energy leads Michigan’s clean energy transformation by looking beyond its own operations to help customers and suppliers reduce their greenhouse gas emissions, especially those generated from natural gas sources.

In 2022, the Company committed to achieve net zero greenhouse gas emissions from the entire natural gas production and delivery system, including customers and suppliers, by 2050. To support this goal, the Company will demonstrate steps required to achieve this goal through investigating customer preference and demonstration of clean fuel technologies. This 2050 net zero goal supports Michigan’s MI Healthy Climate Plan to achieve net zero carbon emissions by 2050, including an interim state target of reducing emissions from space heating 17% by 2030.

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Additionally, Federal Executive Order (“EO”) 14008 of January 27, 2021, commits the United States to a broad action plan addressing climate change. This EO directs federal agencies to prioritize projects that reduce emissions of toxic substances and greenhouse gases from existing and abandoned infrastructure, and to coordinate investments to achieve substantial reductions of methane emissions from the oil and gas sector as quickly as possible. Consumers Energy will remain agile and adjust as needed to accommodate policy as it evolves both on a federal and state level.

The U.S. Environmental protection Agency (EPA) tracks greenhouse gas emissions in three categories:

- **Scope 1:** Direct emissions from sources that are owned or controlled. At our Company, these are emissions produced in the process of generating and supplying energy for customers, such as carbon emissions from burning methane or fugitive methane emissions from our natural gas delivery system. **The Company’s goal to reduce Scope 1 emissions is “methane net zero by 2030.”**
- **Scope 2:** Indirect emissions associated with the purchase of energy for any end use. These emissions may arise from the energy we purchase and use at our facilities and comprise only a fraction of the emissions linked to our company.
- **Scope 3:** Emissions are from sources not owned or directly controlled but related to our activities. These include all emissions traced to natural gas we purchase and activities by customers and suppliers, primarily from end uses like burning natural gas to heat homes and businesses. **The Company’s goal to reduce Scope 3 emissions is “net zero carbon emissions by 2050.”**

1. METHANE NET-ZERO GOAL

Consumers Energy recognizes methane as a greenhouse gas emission, and that methane’s impact as a greenhouse gas is notably more significant than that of carbon dioxide, with a short-term global warming potential that is approximately 100 times greater.

As of 2023, the Company’s system emitted 13,811 metric tons of methane. This means that removing methane early in our decarbonization journey has an even greater benefit to the environment. Even over longer time horizons, methane’s global warming potential remains 25 times that of carbon dioxide. Since 2012, Consumers Energy has reduced its methane emissions from its natural gas delivery system by approximately 27%.

The methane net-zero plan seeks an 80% reduction of methane emissions by 2030 through the following near-term measures:

- Distribution main leaks: replacing vintage pipe (cast iron and unprotected steel).
- Distribution services leaks: replacing vintage pipe (copper and bare steel).
- Storage: Wellhead component leaks (plug and abandon program).
- Compression blowdown venting procedures: reducing natural gas venting frequency/duration.
- Transmission blowdown procedures: increase temporary compression to reduce venting.

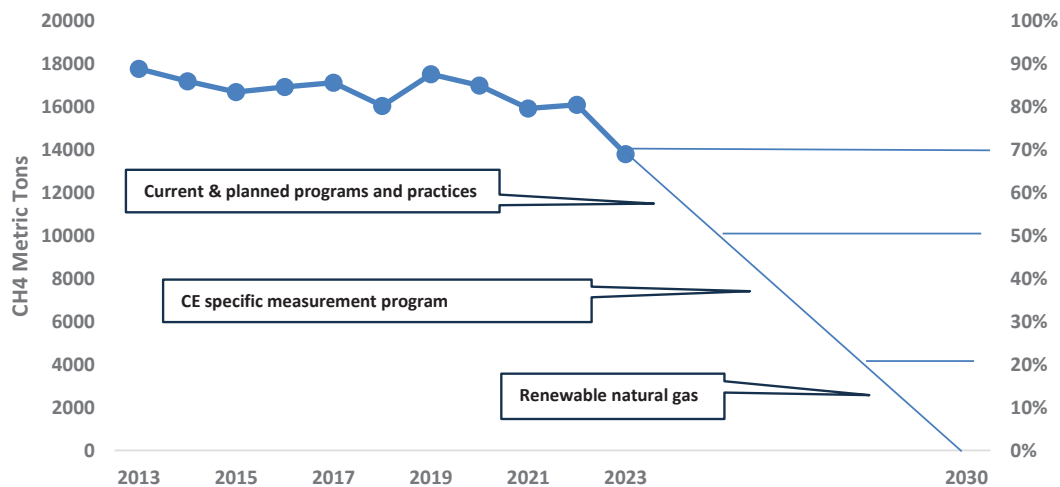
As shown below in Figure 39, procurement of carbon credits potentially through RNG is expected to cover the remaining 20% methane emissions to achieve net zero for the delivery system.

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Figure 39: Net Zero Methane Goal: Emission Reduction and Renewable Natural Gas Offset



2. NET ZERO CARBON EMISSIONS GOAL BY 2050

In March 2022, Consumers Energy committed to net zero emissions from sources not owned or directly controlled but related to our activities on or before 2050. These include all emissions traced to natural gas purchases and activities by customers and suppliers, like those associated with burning natural gas to heat homes and businesses.

Reaching 'net zero' will require Consumers Energy to balance many diverse emission reduction opportunities with safe, reliable, and affordable energy delivery.

It will also require working partnerships with stakeholders across the state to ensure a decarbonized gas system can continue to meet the needs of customers, communities, and businesses.

Overall, to support Michigan's decarbonization goal and meet carbon neutrality by 2050, Consumers Energy has set an interim goal to work with our customers to help them achieve a 20% reduction in Scope 3 emissions by 2030.

Consumers Energy will actively investigate all clean fuel pathways to meet the needs of customers and assess which technologies best support the energy transition.

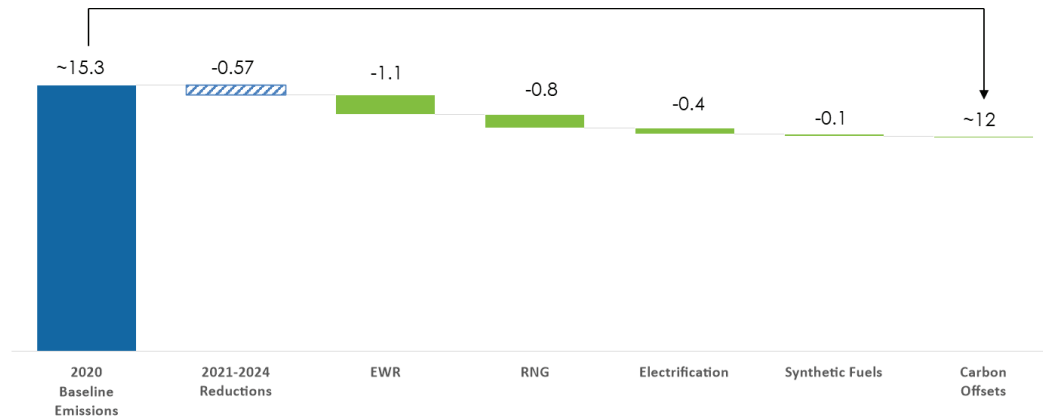
The plan to achieve this 20% reduction by 2030 is shown below in Figure 40, which illustrates that EWR, RNG, carbon offsets, and new emerging decarbonization technologies are all necessary pathways.

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Figure 40: Scope 3 20% carbon emission reduction by 2030



Customer Programs

Consumers Energy offers customers voluntary options to reduce emissions associated with natural gas use through the Company's MI Clean Air Program¹¹.

In February 2022, the MI Clean Air Program was approved to provide a voluntary offering for customers to offset the emissions tied to natural gas use via the use of forestry carbon offsets sourced in Michigan. In March 2024, the Company received additional approval to expand the Program to include RNG as a clean fuel alternative for full-service natural gas customers.

- **Carbon Offsets**

A carbon offset reduces emissions of greenhouse gases made in a separate location. In this way, a reduction in emissions is made in one location to compensate for emissions in a different location, negating the effects of the remaining emission. Accordingly, this Program will provide customers the option to offset the carbon impact of the conventional natural gas used at their location. The Company will supply offsets from in-state forestry projects located in the Upper Peninsula. Limiting the volume of deforestation through this project promotes clean air, preserves wildlife habitats, and clean carbon storage.

- **Renewable Natural Gas (RNG)**

Consumers Energy received regulatory approval in 2024 to provide RNG to customers on a voluntary basis. As part of approval, the Company will build, own, and operate RNG production facilities to provide customers a clean fuel alternative to natural gas sourced from Michigan.

3. RENEWABLE NATURAL GAS (RNG)

RNG is pipeline quality gas that is low-carbon or carbon-negative, and can be used in existing pipelines and end uses. RNG is created by capturing methane from the decomposition of organic matter through anaerobic digestion. This decomposition can occur in wastes associated with food, animals, landfills, wastewater and forest residues. This methane would otherwise be vented into the atmosphere.

¹¹ MI Clean Air Annual Report 2024: [0688y00000DXDy2AAH \(site.com\)](https://www.consumersenergy.com/documents/0688y00000DXDy2AAH/site.com)

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This captured gas is called **biogas** and must be further refined to meet pipeline quality specifications necessary for pipeline injection and customer end use. Once purified to meet pipeline quality standards, the gas is called **RNG** and is chemically identical to fossil natural gas.

- RNG feedstocks including animal waste, landfill, wastewater and food waste are consistently available in Michigan, and can be converted into renewable energy on demand, making it a valuable renewable energy source.
- RNG can also support other environmental goals, including reduced nutrient run-off and improved water quality, organic waste management and diversion, groundwater protection, and displacement of fossil fuels.

RNG Emission Benefits

Benefits are quantified using the industry standard Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation ("GREET") model, resulting in a lifecycle Carbon Intensity ("CI") score. A CI score is the total measure of greenhouse gas emissions associated with producing, distributing, and using a fuel, reflected in grams of Carbon Dioxide equivalents ("CO₂e") per megajoule ("MJ") of energy.

After including all RNG process emissions from capturing methane, upgrading it, transporting it, and burning it, the benefit of avoided methane emission to atmosphere is still significantly greater than the total of those lifecycle emissions. The lower the CI score, the more cost effective it is to reduce emissions. This is because with a carbon negative fuel, only a small portion of RNG needs to be blended to achieve carbon neutrality. For this reason, animal manure based RNG is preferred because it has the lowest carbon intensity of any feedstock.

RNG Production

RNG produced from animal waste will supply the Company's MI Clean Air Program, which will deliver approximately 175,000 tons of carbon dioxide equivalents abatement potential annually to voluntary customers across four production facilities in Michigan.

RNG is scheduled for commercial operation in 2025. In support of Public Acts 53 and 166, which require the Michigan Public Service Commission (MPSC) to develop a low carbon energy infrastructure enhancement and development grant program for the purposes of planning, developing, designing, acquiring, or constructing low carbon energy facilities, two (2) grants were awarded to Consumers Energy for RNG projects at Swisslane and TDI Farms in 2023.

Consumers Energy seeks opportunities with farms to help bring clean fuel to the State of Michigan. Any farm can potentially contribute to Consumers' natural gas supply as Renewable Natural Gas. RNG is an opportunity to reduce emissions and improve the environment in Michigan, while supporting local farms.

4. ENERGY WASTE REDUCTION

Since 2009, Consumers Energy implemented a diverse and balanced portfolio of EWR programs achieving significant energy savings for all major sectors and customer classes, including small businesses and low-income customers.

Energy Waste Reduction (i.e., Energy Efficiency) reduces energy waste, lowers bills and reduces emissions. See below in *Energy Waste Reduction* for discussion.

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5. EMERGING TECHNOLOGIES

Potential pathways to meeting net zero emissions by 2050 include using hydrogen to produce energy, capturing and sequestering carbon emissions from natural gas combustion, and using synthetic natural gas and electric heat pump systems to heat homes and businesses.

- **Hydrogen**

Hydrogen has the greatest energy-to-weight ratio of any fuel due to its lack of carbon-based elements. Additionally, hydrogen is an ideal fuel when it comes to emissions as it contains no carbon or sulfur when combusted. Modeling results show hydrogen is most optimally used as a replacement fuel for high heat end use processes that are difficult to electrify¹².

Note that hydrogen and natural gas are *not* completely interchangeable as a usable fuel at existing pressures and flow rates. However, given advantages tied to dispatch, storage, and carbon neutrality, hydrogen is being assessed by the energy industry to determine its potential as a clean energy pathway for the future natural gas system.

Hydrogen's zero carbon footprint along with its energy content characteristics make it an important pathway that targets hard to abate high heat processes such as industrial drying, compression, and long-haul transport. The Company's initial focus on Hydrogen is to support customers who currently use Hydrogen and wish to reduce emissions associated with its production.

- **Clean Synthetic Fuels**

Clean synthetic fuels refer to manufactured natural gas that has no carbon footprint. Manufactured natural gas combines hydrogen and carbon dioxide to form methane under certain conditions. With Michigan businesses recently selected as partners in the Midwest Alliance for Clean Hydrogen (MachH2) hydrogen hub, committed to growing the Midwest regional hydrogen value chain, Consumers Energy is investigating how to best partner with these businesses as an energy provider.

With synthetic natural gas widely deployed around the world, zero emissions can be achieved by combining green hydrogen via electrolysis with carbon dioxide captured from a Company-owned RNG facility. The result is a zero-carbon form of methane that has no impact to the existing natural gas infrastructure. In 2025, Consumers Energy will investigate the economics and feasibility of this technology in support of the MachH2 hydrogen hub.

- **Electrification – Individual air source heat pumps and Hybrid heating**

Electrification is the conversion of energy for end uses from natural gas to electricity. The carbon benefit to electrification is the elimination of emissions tied to natural gas combustion. Modeling shows the most cost-effective means of electrifying residential end uses is with hybrid heating. Hybrid heating combines the heat content of natural gas with the efficiency of a heat pump. In this context, heat pumps would be used as much as possible; however, during the coldest winter months, natural gas furnaces would still be used to mitigate winter peak electric load. Consumers Energy is assessing where hybrid heating and heat pump technology can best serve customers.

¹² *Properties of Hydrogen*, 2001. College of the Desert.

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- **Electrification – network geothermal systems**

Geothermal energy is the most efficient form of energy yet high up-front costs remain a barrier to its development. Although ground-sourced heat pumps can be installed on individual homes, Consumers Energy is investigating the concept of 'network geothermal.' A networked geothermal system is a network of ground source heat pumps connected via common ground circuits. Network geothermal systems have two unique attributes. First, they share energy between load centers, where a business that rejects heat for cooling purposes can be used down the street by a home for heating purposes, thereby greatly increasing energy efficiency. Secondly, these systems store heat in the earth during cooling seasons and withdraw that same heat months later during heating seasons just like a natural gas storage field. For these reasons, network geothermal systems drive energy efficiencies upwards of 600%.

Networked geothermal systems are mature technologies, used for decades on college campuses, and well considered the most energy efficient form of heating and cooling. Two natural gas utilities, *Eversource* and *National Grid*, have network geothermal demonstrations approved through public service commissions today with plans to expand.

In 2024, the Company received a grant award from the MPSC to study network geothermal across its service territory. The initial objective is understanding how such a system meets the needs and energy preferences of existing natural gas customers. Initial community engagement will occur to educate customers on geothermal benefits, gauge interest in participation and identify anchor users for specific locations. Anchor users are defined as higher load entities that reside near homes and other businesses.

- **Carbon Capture**

Michigan is unique in that its geology provides large scale potential for underground carbon sequestration. Although not well understood at this time, carbon capture, sequestration and storage remain a key technology to achieve a net zero emissions future.

VII. Energy Waste Reduction (EWR)

Natural Gas EWR programs play a role in decarbonizing the gas system; reducing the amount of energy consumed; and reduces Scope 3 methane emissions.

Additionally, EWR Programs contribute to the Company's Clean Energy Plan goals to end coal use for electricity generation by 2025, reduce carbon emissions by more than 63 million tons, and meet customer needs with 90% clean energy resources (including renewable energy and EWR) by 2040.

Consumers Energy filed its 2024-2025 EWR Plan Filing in August of 2023, case number U-21321¹³ and it was settled on February 8, 2024. The portfolio of EWR programs achieves 1% natural gas savings annually, which will cumulate to approximately 14.8 Bcf by 2026 and 26.5 Bcf by 2030

Consumers Energy built the EWR portfolio by selecting program measures (equipment), customer participation, and customer incentives to cost effectively achieve legislative and Consumers Energy clean energy goals. Taken together, the portfolio of EWR programs outlined in this Plan continue Consumers Energy's history of offering a diverse portfolio of cost-effective, flexible, and inclusive program

¹³ The February 8, 2024 Case No. U21321 Order Approving Settlement, available on the MPSC website: [0688y00000BulxcAAB \(site.com\)](https://www.mpsc.state.mi.us/0688y00000BulxcAAB), authorizes gas EWR program investment of \$95.5 million in 2024 and \$95.1 million in 2025 to achieve 1% of sales gas targets each year.

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choices, incentive options, and educational opportunities for every customer class. Consumers Energy's program offerings are summarized in Table 6.

Table 6: 2024–2025 Program Summary

Program Name	Markets Served	Program Offerings
Residential EWR Portfolio		
Appliance Recycling	All residential electric customers	Incentive and environmentally responsible, free pick up of older, inefficient refrigerators, freezers, and small appliances.
Assessments and Behavioral	All residential customers	- Walk-through or virtual home inspection, installation of free energy-saving measures, and customized post-assessment report with energy-saving tips and recommendations tailored to customer's fuel type (dual fuel, natural gas-only, or electric-only). - Personalized household reports, sent by mail and/or email, with individual energy usage tips and program recommendations.
Home Solutions	Residential customers in single-family homes	- Distributor and point of purchase rebates for the purchase and installation of high-efficiency heating, cooling, insulation, windows, and hot water equipment. - Web-based Find-a-Contractor tool.
Income-Qualified	Residential low-income customers in single-family homes	- Free walk-through or virtual home inspection/assessment with equipment installation. - Home weatherization funding assistance. - Collaboration with community partners to provide maximum and coordinated benefit to income-qualified customers.
Income-Qualified Multifamily	Residential low-income customers in multifamily housing	- Direct, no-cost installation of energy-saving devices in individual tenant units and common areas. - Educational materials explaining the program's energy and money saving benefits. - Prescriptive and custom incentives (offered at a higher rate than those in the Market-Rate Multifamily program) for property owners to install energy-saving equipment in individual units and common areas.
New Home Construction	Residential builders	- Incentives for builders who construct new homes to ENERGY STAR standards or achieve a minimum Home Energy Rating System (HERS) score. - Builder training on high performance building practices and how to promote the value of energy-efficient homes.
Think! Energy	Early elementary to high school students and community groups	- In-class or virtual EWR presentations and educational content for teachers and community groups. - Free energy-saving take-home kit including low-cost energy-efficiency measures and educational content.

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Program Name	Markets Served	Program Offerings
Business EWR Portfolio		
Prescriptive	Large business customers	Prescriptive downstream and midstream rebates ranging from 20% to 40% of the incremental cost of high-efficiency electric and natural gas equipment.
Custom Solutions	Large business customers	Analysis, performance-based incentives, and technical assistance for large commercial and industrial customers who install high-efficiency equipment or process improvements not covered through the Prescriptive program.
Energy Assessments	Small- and medium-sized business (SMB) customers	- On-site energy assessments with limited direct installation measures and a report on the measures installed, product recommendations, and tips on how to save more energy. - Installation and direct distribution (via mailed kits) of free measures including showerheads, faucet aerators, pre-rinse sprayers, pipe wrap, and programmable and smart thermostats.
Small Business Store	SMB customers	Self-service, online marketplace that provides instant incentives for the purchase of qualifying energy-efficient products.
SMB Contractor Rebates	SMB customers	Installation of common lighting and refrigeration measures by participating trade allies.

The table below outlines the Company's approved 2024-2025 EWR Plan natural gas savings targets.

Table 7: Natural Gas Investments and Savings Compared to Targets

	2023 Actual	2024	2025
Planned Investment, Natural Gas Programs	\$99,111,306	\$95,487,640	\$95,066,407
Annual Natural Gas Savings, Statutory Target (Mcf)	2,171,018	2,515,998	2,506,105
Annual Natural Gas Savings, Statutory Target	0.75%	0.875%	0.875%
Annual Natural Gas Savings, Planned (Mcf)	3,752,780	2,934,071	2,944,466
Annual Natural Gas Savings, Planned (%)	1.3%	1.0%	1.0%

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VII. Financial Summary

A. Benefits of the Integrated System Plan

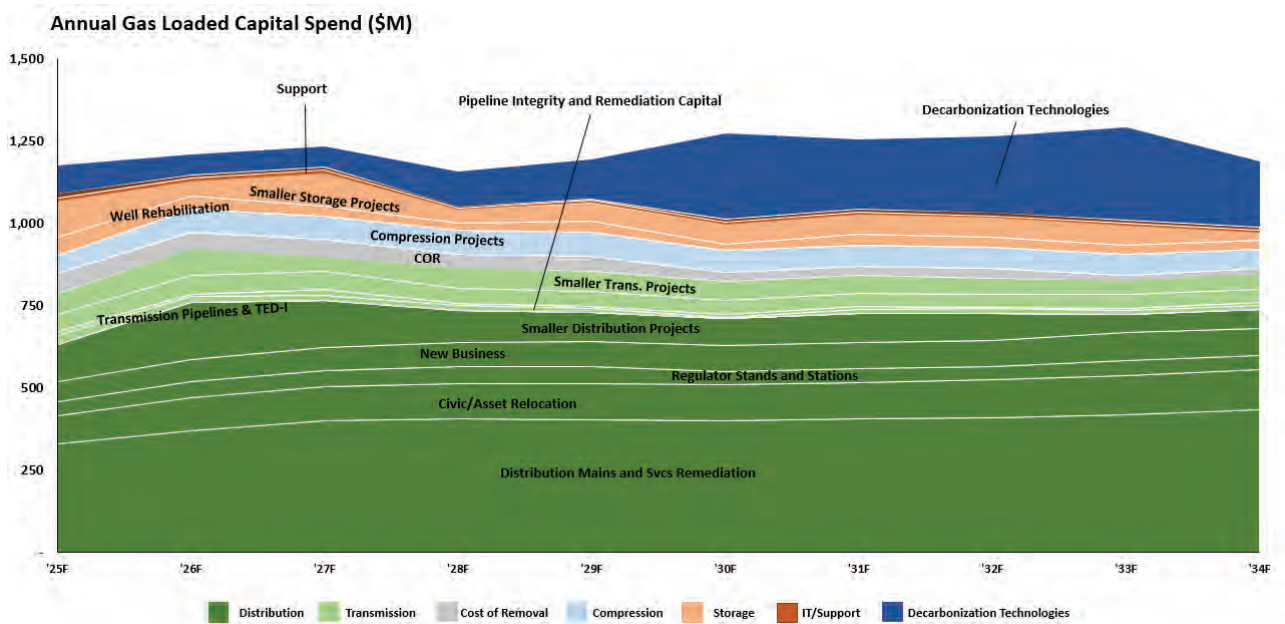
A significant benefit of this Plan is allocating capital using a holistic view of the entire gas system to prioritize projects between asset classes. The four objectives of the Plan (i.e., safe, reliable, affordable, and clean) are used to guide and prioritize future investment decisions. The Company allocates capital based on the most necessary needs and in accordance with these objectives, enabling success in the 10-year outcomes.

B. Financial Profile

The Integrated System Plan informs funding decisions about capital projects. Forecasting work over a rolling 10-year period helps communicate investment in various portfolios over a longer time, while providing the agility necessary to modify plans based on potential internal and external changes over time.

Overall, the total future capital spend shows approximately \$12 billion from 2025 to 2034, at an annual capital investment spend of approximately \$1.2 billion per year. This level of capital investment is consistent with recent past years with new potential investments for digital technologies, RNG, and other possible decarbonization technologies to evolve the system in the future. The capital forecast helps achieve the safe, reliable, and clean objectives by enabling predictable and affordable customer bills.

Figure 41: 2025 – 2034 Capital Plan



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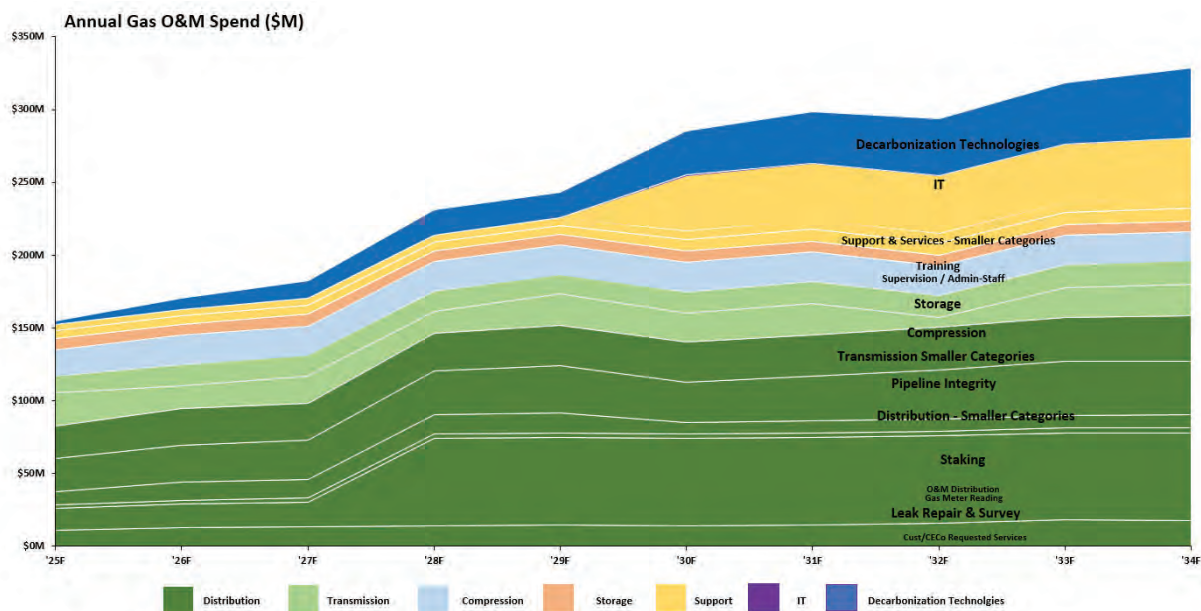


Figure 42 shows that this capital investment will also result in an increase of O&M cost over the next five years. Additionally, the Company anticipates requirements to comply with the Pipeline and Hazardous Materials Safety Administration (PHMSA) proposed Leak Detection and Repair (LDAR) rule to result in an increase in O&M cost beginning in 2028 and beyond.

It is expected that capital investments in the distribution asset class will support the cost of leak repair and survey but will increase due to the continued aging of the system and anticipated enhanced regulatory requirements from the LDAR Rule.

- Given the criticality of maintaining and securing technology assets after implementation, if a gap exists in the IT or other O&M available, the Company will prioritize operational support of its current technology assets over investing in new capabilities.
- The Company's IT O&M projections are calculated based on a comprehensive analysis of known and forecasted expenditures providing accurate and reasonable projections of future year IT O&M requirements.

Figure 42: 2025 – 2034 O&M Plan



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VIII. Closing

Consumers Energy has developed this 10-year Plan for the gas delivery system to ensure Michigan has a safe, reliable, affordable, and clean natural gas supply. This Plan highlights commitments to:

- Enhance **safety** by prioritizing and lowering system risk throughout the gas delivery system.
- Deliver **reliable** supply to customers with prudent contingency planning.
- Provide **affordability** to customers through stable, competitive, and predictable energy value.
- Create a **cleaner** gas delivery system that reduces greenhouse gas emissions.

The Plan reflects a thorough analysis of the system, the natural gas commodity market, trends, and practices across the industry, and regulatory and customer trends.

Consumers Energy routinely reviews the validity of the inputs and assumptions that led to the updating of this Plan, and will adjust in the future as appropriate, and continue to share the Company's vision with stakeholders across Michigan.

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Appendix A – Industry Standards

As a regulated gas utility company, Consumers Energy must adhere to many different State and Federal Pipeline Safety regulatory requirements. The following is a high-level, not fully inclusive, list of requirements and industry standards or practices as an example:

Code of Federal Regulations

- 49 CFR Part 191 - Transportation of Natural and other Gas by Pipeline; Reports
- 49 CFR Part 192 - Transportation of Natural and other Gas by Pipeline; Minimum Federal Safety Standards
- 49 CFR Part 199 - Drug & Alcohol Testing

Michigan Gas Safety Standards

Michigan Technical Standards for Gas Service

American Petroleum Institute

- Standard 1164 – *Pipeline Control Systems Cybersecurity*
- Recommended Practice 1171 - *Functional Integrity of Natural Gas Storage in Depleted Hydrocarbon Reservoirs and Aquifer Reservoirs*
- Recommended Practice 1173 – *Pipeline Safety Management Systems*

Appendix B – System Figures & Facts

Miles transmission pipeline:	2,342
• Miles of mainline pipelines: • Miles of pipeline within compression stations: • Miles of storage pipes: • Miles of TOD:	1,560 22 244 516
Miles distribution pipeline:	28,368
Number storage fields:	15
Number compressor stations:	8
Number customers:	Approximately 1.8 Million
Number storage wells:	808
Gas storage working gas capacity:	154 Bcf

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Appendix C – Decarbonization Modeling

In 2021, Consumers Energy worked with industry leading consultants to better understand the most affordable and resilient state-wide economy decarbonization plan that achieves net zero carbon emissions by 2050.

This analysis incorporates both the Company's electric and gas utilities with an 'energy agnostic' approach. It was determined that limiting the scope of analysis to the Consumers Energy service territory would improperly exclude constraining factors like electric vehicle demand on the grid and would not take advantage of geographic and logistical efficiencies throughout the State.

The modeling analysis used regional attributes to understand the most cost-effective energy supply to meet the energy demand of the State, including full electrification of the passenger vehicle sector, while simultaneously achieving net zero emissions by 2050.

The analysis was completed for six different scenarios, shown below in Figure 43. Important assumptions are noted here across three specific scenarios.

- **The business-as-usual scenario is used as a reference point** and assumes no progress in energy decarbonization.
- The **no gas system scenario was assessed to understand the cost of meeting energy demand** in the absence of the gas system, meaning all current uses of gas, including industrial processes and electric generation would require alternative energy supplies like hydrogen or electrification. This scenario also demonstrates the value the current gas system provides to the state's overall decarbonization costs.
- **The high electrification scenario assumes all end uses are electrified except for natural gas electric generators**, meaning the compression and transmission system would remain, while most gas distribution pipelines would be retired.

Figure 43: Decarbonization Scenarios

1	2	3	4	5	6
Business as usual	No gas system	High electrification	High Clean Gas	Balanced decarbonization	Balanced, with no sequestration
In a reference case that does not achieve net-zero carbon , how does energy demand grow? What energy sources meet that demand? What are the resulting BAU costs and emissions?	If the gas system (Tx and Dx) is fully decommissioned , how are traditional gas loads served? What electric generation, transmission, and distribution capacity is required? What generation resources replace thermal generation? How are industrial customers' needs served?	If policy, technology and customer behaviors drive rapid building electrification how is that load met? What grid investment is required? How much thermal generation is needed to provide system resiliency? How does gas throughput change to different end-use sectors?	What role could a clean gas system play in achieving deep decarbonization reliably and affordably? What pipeline blend is required of hydrogen, biogas, synthetic natural gas, and fossil natural gas with carbon capture and sequestration ? What gas infrastructure investments are needed?	What is a low cost scenario to achieve system-wide decarbonization, balancing cost effective electrification and natural gas offset by carbon sequestration ? How does throughput on each system change? How are the different energy sectors inter-connected to optimize the integrated system end-state?	What is a low cost scenario to achieve system-wide decarbonization, balancing cost effective electrification and decarbonized pipeline gas ? How does throughput on each system change? How are the different energy sectors inter-connected to optimize the integrated system end-state?

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The key conclusion from modeling was that a **balanced combination of multiple technologies is the most cost-effective means of achieving economy-wide decarbonization by 2050**. The diversity in a balanced combination of multiple technologies not only increases resiliency, but also increases optionality across the system, lowering risk of not achieving carbon neutrality.

In all scenarios, electric load increases due primarily to electric vehicle deployment and some space heating electrification. As coal plants are retired, gas generation with carbon capture grows to meet increasing load.

Renewables are an increasingly important part of Michigan's energy supply, but controllable energy, like long duration energy storage is needed for maintaining a reliable energy supply.

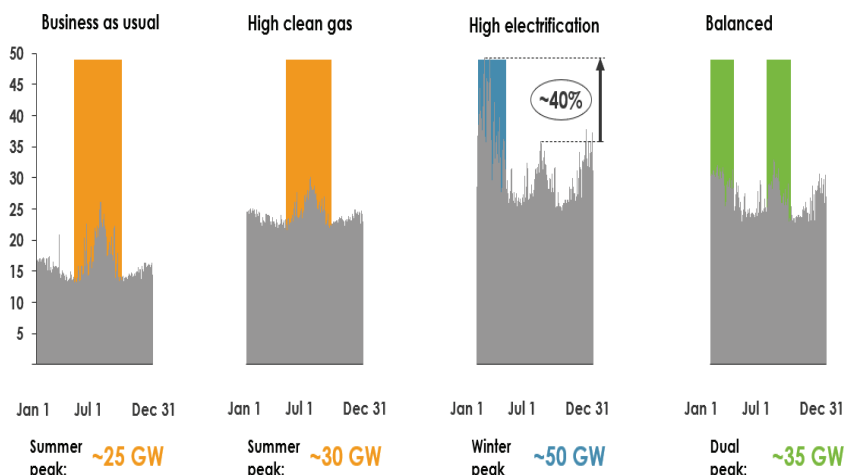
Other important conclusions show:

- The gas distribution system enables cost effective, reliable home heating in Michigan winters.
- The gas transmission system is needed to supply natural gas to electric generators.
- Carbon sequestration is needed to cost effectively achieve durable decarbonization, specifically to support electric generation, synthetic gas and hydrogen production.
- Clean fuels such as RNG and hydrogen provide system resiliency, diversification, and energy for hard to electrify end uses.
- Electrification potential was constrained by costs associated with additional transmission and generation infrastructure necessary to meet winter peaking electric demand.

As shown below in Figure 44, analysis indicates that in a highly electrified decarbonized future scenario, building electrification can drive winter peaks as high as 40% higher than summer peaks. In this scenario, the most economic form of clean electric base load generation to support building electrification would come from natural gas generators fitted with carbon capture.

Hybridized electric + gas space heating, as represented within the 'balanced scenario' can mitigate a peak shift to winter, reducing the need for investment in electric generation and transmission by ~\$20-\$25B compared to a high electrification scenario.

Figure 44: Potential Electric Peak Load Impacts by Scenario



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Additionally, ~20% less electric generation capacity is required in the ‘balanced scenario’ than in a high electrification scenario, which helps mitigate cost increases.

In each decarbonization scenario, there is a societal cost impact to Michigan with a ‘balanced scenario’ the lowest societal cost pathway to meet carbon neutrality by 2050. Total energy system costs include all costs associated with energy in Michigan, including feedstock and commodities; electricity generation, storage, and fuel production technologies; energy delivery infrastructure; carbon capture and sequestration; demand-side technologies (e.g., appliances and vehicles, EE investments, etc.).

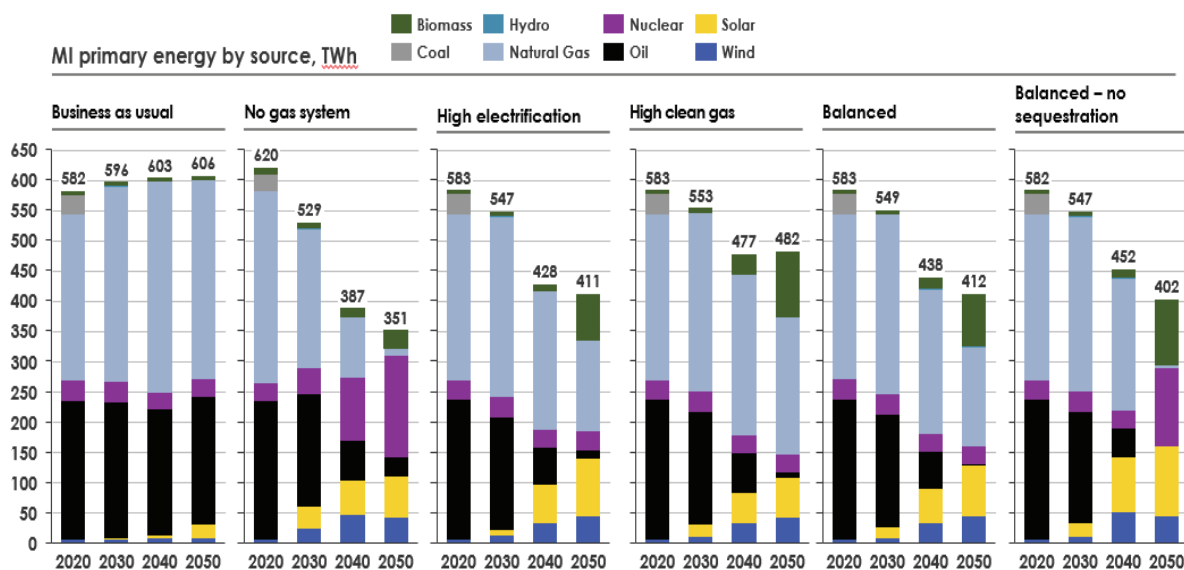
RNG (“biogas”) is seen as a foundational technology that best prepares the Company for any likely decarbonized future scenario including high electrification, high clean gas, and a balanced approach. This is because RNG is cost effective in reducing carbon, mature technology, and requires no incremental investment in the existing infrastructure.

RNG resources are available today and require no modification to the existing infrastructure, making it more cost-effective than other approaches. For this reason, the Company offers RNG as a voluntary product to customers providing the State with progress towards our shared environmental goals over time.

In all likely scenarios (high electrification, high clean gas, balanced), modeling shows natural gas generation as the least-cost, carbon neutral energy supply able to meet demand. In the absence of a gas system or carbon-neutral natural gas generation, new nuclear generation would be necessary to support demand by 2050 as shown in Figure 45.

NOTE: This analysis is Michigan-wide and does not necessarily reflect the Company’s expected energy supply.

Figure 45: Potential Primary Energy Sources by Decarbonization Scenario



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Appendix D – Talent Pipeline

The following initiatives are important steps to attract, retain, and grow the talent within the Company:

1. Career Awareness Activities

- **Michigan Career Quests:** There are 10 MI Career Quest events held throughout the state each year. These day-long events provide hands-on career exploration for high school students.
- **Careers in Energy Week:** Each year the third week of October is declared to be *Careers in Energy Week* by the Governor. The Company makes a concerted effort to promote skilled trades, engineering, renewables, and IT career fields within energy via a series of tours, events, school career fairs, social media contests and campaigns, and public relations activities.
- **Talent Ambassadors (Formerly Education Champions):** Nearly 450 employees raise their hand each year to support local school district career fairs, mock interviews, and to speak with classes about careers in energy, their personal experience and career pathway.
- **Summer Youth Energy Academies:** The Company expanded in 2022 to add Pontiac and Flint to the two summer youth employment programs started in 2021 in Jackson and Grand Rapids. This 6-week academy provides participants with exposure to energy careers while gaining pre-employment essential skills. Intentional efforts to build networks with diverse partners and communities resulted in over 50% of students from historically underrepresented populations.
- **Elementary School Energy Safety and Careers Presentations:** Beginning in 2022, the Company offers hands-on, one-hour presentations for 4th and 5th graders in partnership with the union, UWUA, representing our frontline gas and electric workforce. We have identified the top 10 most diverse school districts in our service territory as the highest priority to deploy these important workshops. In 2022, we reached 1,500 students across 21 schools.
- **Detroit Area Pre-College Engineering Program (DAPCEP)** is a Detroit area pre-college engineering program designed to increase the number of historically underrepresented students pursuing STEM Careers.
- **Project SEARCH** focuses on high school students with cognitive disabilities. The program provides work experience and mentoring to the students while they complete their senior year at our headquarters in Jackson. Consumers Energy was honored, along with six other Michigan Project SEARCH sites, with the employment outcome awards for the 2021-2022 year. The graduating class resulted in 83% of students obtaining employment in the community after their experience. Since its inception, 44 students have participated and graduated from Consumers Energy's program and our company is welcoming 10 new interns for the 2023-2024 school year.
- **Inside Track Webinars** This new popular webinar is focused on promoting energy careers to diverse job seekers. Held three times in 2022, over 1,000 people joined in the one-hour session to learn about our career pathways, school partners, application processes, decoding our job postings, and increasing their employability at Consumers Energy.

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2. Training and Education

- **Veteran's Gas Bootcamp:** In partnership with UWUA trade school, Power for America (P4A), the Utility Military Assistance Program: Michigan Gas Boot Camp (UMAP-MI) openly recruits current Michigan National Guard members, Reservists and Honorably Discharged military veterans. The program is designed to provide the requisite skills and knowledge an individual will need for a successful career within the gas utility sector. To date, Consumers Energy has employed 201 Veterans because of the Gas Bootcamp.
- **Energy Industry Fundamentals:** Through the Michigan Energy Workforce Development Consortium, we partner with Career Technical Education centers and high schools (Hartland, Boyne City, Oakland South and Oakland North, Holt, Jackson Public, Jackson Northwest, Western High school) to deliver the national certification course, *Energy Industry Fundamentals*. This course is also offered as a part of college energy programs at Lansing Community College, Jackson College, MIAT, and Henry Ford Community College. Each year more than 250 students enroll in the course statewide.
- **Jackson College Energy Systems Program:** As the college located in our Headquarters' hometown of Jackson, Consumers Energy partners with Jackson College to provide education for a multitude of job roles including gas delivery technicians, planners, and schedulers. Their two- and four-year degree programs in Energy Systems were developed in partnership with the Company and are continually updated to meet our needs.

3. Resources

- **Michigan Energy Workforce Development Consortium:** The Company works with other utilities and provides leadership for MEWDC. This organization is made up of more than 50 partners from education, government, workforce development, and community-based agencies to strategize, plan, and execute activities that increase available diverse qualified workforce.
- **State Apprenticeship Expansion (SAE) Grant Funding:** Most recently MEWDC was awarded a \$1.1 million grant (\$134k coming to CE) to recruit and train more women, racial or ethnic minorities, and veterans into skilled trade positions.
- **Going Pro Grant:** In addition, the Company receives between \$400-500k per year in grant funding to support technical training for our operations, maintenance, and construction workforce through the State Going Pro grant program—ensuring that our new apprentices have access to high quality state of the art training.

4. Diversity, Equity, and Inclusion in the Talent Pipeline

- **Intern Recruiting:** Annually engages in over 50 on-campus recruiting and networking events connecting students to various internal business departments. Partner with various internal Intern Councils to identify workforce needs, schedule recruiting activities, screen, and select company interns. In an average year, the Company vets over 5,000 qualified intern candidates to fill roughly 100-150 positions.
- **Targeted Campus Organizations:** In support of the campus recruitment, the Company will deliberately partner with diverse student organizations in effort to ensure maximum exposure of our intern and career opportunities. Some of the most prominent student organization partners include: Society of Women's Engineers (SWE); National Society of Black Engineers (NSBE); Society of Asian Scientist and Engineers (SASE); and Society of Hispanic Professional Engineers (SHPE).
- **Intern Experience:** During the summer internships, the Company leads several engagement opportunities with the interns to foster a positive experience. Annually, Consumers Energy hosts an intern luncheon experience designed to develop a deeper understanding of our business and build affinity.

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- **Professional Organizations:** In support of the core business needs and benchmarking studies, the Company continuously seek partnerships to improve our employee diversity. The goal is to infuse high quality diverse applicants into all our external job postings. These deliberate efforts include a paid partnership with Professional Diversity Network (PDN) to participate in six diverse organization career fairs in 2021 and post all of vacancies on over 30 partner network careers sites reaching over 500,000 diverse jobseekers.
- **Corporate Giving Partnership:** Collaboration with Corporate Giving gives the Outreach Team the ability to connect with recipient organizations to support our workforce needs. These partnerships provide unique opportunities to meet, mentor, and support student bodies that traditionally have a high attrition rate of female and minority students.
- **National Women in Construction (NAWIC) Relationship:** Over the past five years, the Company has maintained a strong working relationship with NAWIC to help promote our opportunities to their membership. Over the past two years, Consumers Energy has shared every external gas construction vacancy posting with NAWIC.
- **Targeted Career Fairs:** Annually, the Company supports more than two dozen career fair events focused on racial/ethnic minorities, females, veterans, and individuals with disabilities.
- **Virtual Engagement:** In 2019, the Company began using virtual career fair platforms to provide more opportunities to reach targeted audiences. This augmentation plan allowed the Company to seamlessly transition to full remote career fair and networking with targeted jobseekers in our current remote environment.
- **Career Bootcamps for Hiring Success:** The Company is creating a pipeline to become an employer of choice for underrepresented communities in high demand occupations. These bootcamps are designed to springboard participants to a successful career. In partnership with trade schools and the Utility Military Assistance Program, our Michigan Gas Boot Camp (UMAP-MI) openly recruits current Michigan National Guard members, Reservists and Honorably Discharged military veterans. The program is designed to provide the requisite skills and knowledge an individual will need for a successful career within the gas utility sector. Successful completers are employed with Consumers Energy as entry-level Gas Lines Construction Laborers.

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Appendix E – DE&I Movement Stands

Embedding DE&I focuses on educating our coworkers and highlighting opportunities where coworkers can contribute to creating an inclusive environment.

- **DE&I Awareness Training:** In 2021, the Company launched a from-the-top learning model for our employees for DE&I awareness training. In 2022, 100% of all coworkers were committed to completing DE&I awareness training.
- **Business Employee Resource Groups (BERG):** The Company has 2,000+ coworkers, more than 20% of our workforce, engaged in our Business Employee Resource Groups where each embrace differences to improve working relationships and deliver better results for customers, communities, and coworkers. All seven BERGs are employee-led, raising new initiatives that will lead to a greater sense of belonging for all.
- **DE&I Champion Program:** A program made up of union employees and exempt, their mission: Create safe spaces and assist the workforce in embedding DEI into everything we do, at all levels, by promoting an inclusive environment and restorative approach through training, coaching and supporting the workforce one on one, in teams and through inclusive leadership. The program works to advance belonging by leading grassroots communication efforts and action-oriented opportunities for involvement, identifying, and addressing gaps through problem-solving, and providing continuous DE&I learning opportunities.
- **Well-Being Consultants:** “Well-Being Consultants,” lead well-being initiatives throughout the Company by identifying and addressing needs of our co-workers and provide continuous opportunities to engage in well-being efforts throughout the organization and beyond (retirees and spouses).

Our Talent Stand: We expect every future and current employee to have equitable opportunity to succeed.

Consumers Energy is building a world-class, inclusive workforce to better reflect our community.

- **100% Diverse Hiring Committees and Candidate Slates:** The Company expects every future and current co-worker to have an equitable opportunity to succeed. The practices include 100% diverse hiring committees and candidate slates for every position posted. Further, the hiring training includes the hiring best practices for our managers, including strategies to mitigate unconscious bias.
- **Summer Youth Energy Academies:** Within the communities where the Company’s employees live and work, there are 450+ Talent Ambassadors inspiring K-12 students to become future coworkers—thus building the Talent Pipeline in the communities we serve for future generations. The 6-week Summer Youth Academy provides participants exposure to energy careers while gaining pre-employment essential skills.

Our Supplier Diversity Stand: A vibrant and diverse supplier network increases competition, strengthens innovation, and ultimately benefits customer affordability.

The Company is maturing in diverse supplier programs by building a framework that enables high quality, long-term success, knowing that supplier diversity contributes to operational excellence.

- **Expanding our reach:** The Company connects, supports and develops minority, women, LGBTQ, disability, and veteran-owned suppliers. Diverse suppliers are encouraged to create a business profile on our “Become a Supplier” website. The program will continue to expand across a diverse supplier network and strengthen supplier relationships.

Our Philanthropy Stand: Consumers Energy creates equitable, sustainable change to support social justice initiatives throughout Michigan and the communities served.

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The Company has given back to Michigan for more than 135 years, supporting communities through the Consumers Energy Foundation since 1990. The Foundation supports organizations working to advance racial and ethnic justice and striving to further equity for women, veterans, the LGBTQIA+ community, people with mental and physical disabilities, and people living below the Asset Limited, Income Constrained, Employed (ALICE) threshold.

- **Signature Awards:** Each year, the Consumers Energy Foundation makes signature grant allocations of \$500,000 each (totaling \$1.5 million) to two or more Michigan nonprofit organizations striving to make a positive impact aligned with the corresponding priority area.
- **Supporting DE&I in Local Communities:** In 2022, the Foundation launched an initiative to award \$100,000 to five community foundations actively engaged in DE&I efforts in their local communities. Each community foundation received \$20,000 to support this important work. Based on the success of this program, the Foundation doubled its investment in 2023 by awarding \$200,000 to ten community foundations across the State.
- **BERG Grant Program:** Each year, the Foundation allocates \$10,000 in grant funding to each Business Employee Resource Group (BERG).

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Appendix F – MAOP Distribution Program & Project List

Line Segment	Estimated Capital Cost	Length (miles)	Expected Pipe Size	Construction Complete Year
Completed Projects				
Line 1009 Huron Park to I94	3,183,351	0.5	12"	2024
Projected Projects				
Line 1020 Greenfield Rd	258,395	0.038	12"	2024
Line 1002f Macomb ITC Corridor	2,991,188	0.07	26"	2025
Line 1009/1009c I94 to Little Mack, 10 Mile to 11 Mile	19,935,392	1.53	12"	2025
Line 1022f Vermontville	378,402	0.038	8"	2025
Line 1087b East & West Segments	10,677,954	0.81	12"	2025
Line 1090n	326,919	0.012	8"	2025
Line 1006 Ph 1 Groebel Dr to Mound Rd	6,295,452	0.31	24"	2026
Line 1009c Ph 3 Little Mack - 10 mile to 9 mile, Macomb	9,643,900	1.3	12"	2026
Line 1026f Mt Hope	10,828,963	0.758	8"	2026
Line 1093 Shattuck Rd	20,900,643	1.76	12"	2026
Line 1080 Dual Main	34,335,275	6.7	12"	2025
Line 1026i MSU PP	3,420,311	0.133	8"	2027
Line 1022	39,867,880	3.5	16"	2026
Line 1006 Ph 2 11 Mile Mound to RR St.	16,448,049	0.75	24"	2027
Line 1009c Ph 4 11 mile - Little Mack to RS22, Macomb	6,926,168	0.5	12"	2027
Line 1041 Lapeer Rd	30,543,990	3.4	12"	2027
Line 1087f S Saginaw Rd	517,836	0.028	N/A	2027
Line 1002	8,020,248	0.33	16"	2028
Line 1002c	177,542,697	8.15	24"	2029
Line 1019w	604,141	0.028	10"	2029
Line 1082 E Kilgore Rd and Portage St	999,769	0.041	12"	2029
Line 1019k Amrhein and Newburgh Rd	341,000	0.028	12"	2030
Line 1019z	31,000,000	4.56	16"	2030
Line 1090l W Caro Rd	1,350,000	0.15	8"	2031
Line 1006 Ph 3 11 Mi/Deq to Dvd Givens	12,000,000	1	16"	2031
Line 1008	26,250,000	2.5	12"	2032
Line 1049d I-475 Crossing on Bristol Rd	298,000	0.028	12"	2033
Line 1091 S Van Dyke-S Outer Dr	7,350,000	0.7	8"/12"	2033
Line 1082 Lovers Lane	4,200,000	0.4	12"	2034
Line 1082f	1,800,000	0.2	8"	2034
Program Level Adjustment	-9,879,144			